

# STATE **FREIGHT** ADVISORY COMMITTEE

*presented to*

*Members of the Committee*

*presented by*

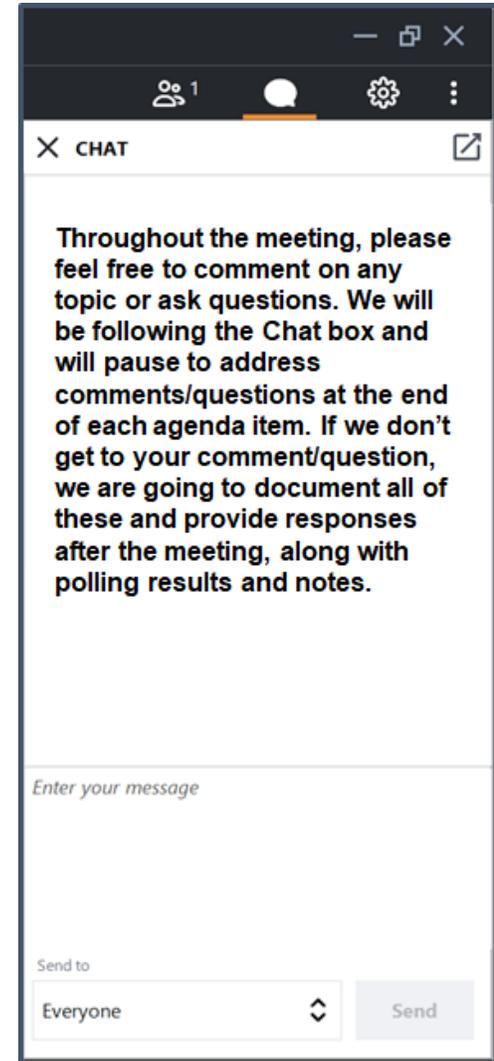
*MDOT*



WEDNESDAY, APRIL 6, 2022

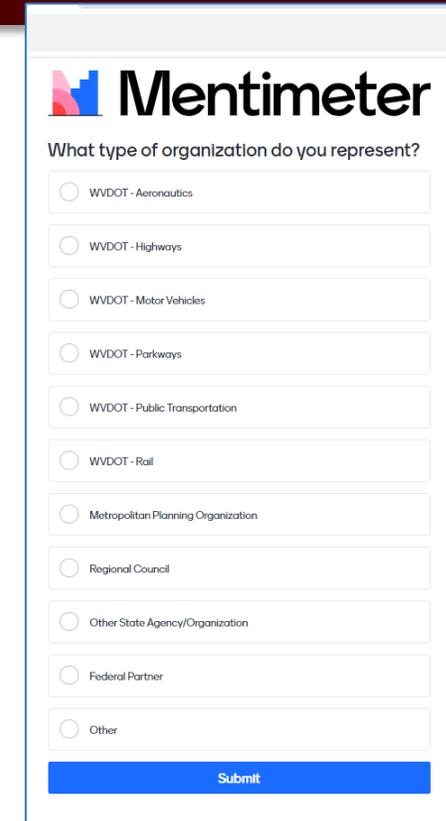
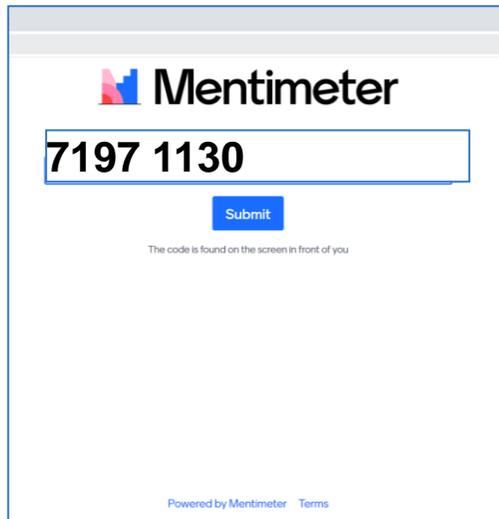
# MEETING LOGISTICS

- Keep your computer/phone on mute
- Please keep your video off until/unless you are presenting
- Use Teams Chat window to share questions/thoughts
- We will pause at the end of each agenda topic/presentation to address comments/questions as time allows
- For Chat comments we do not address, we will document all comments and provide responses in meeting notes



# HOW TO POLL ON MENTI

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2. Enter the code **7197 1130**



3. The first poll will open, follow the directions, when you are done, click **Submit**

4. The next poll will open once we are on that slide in the presentation

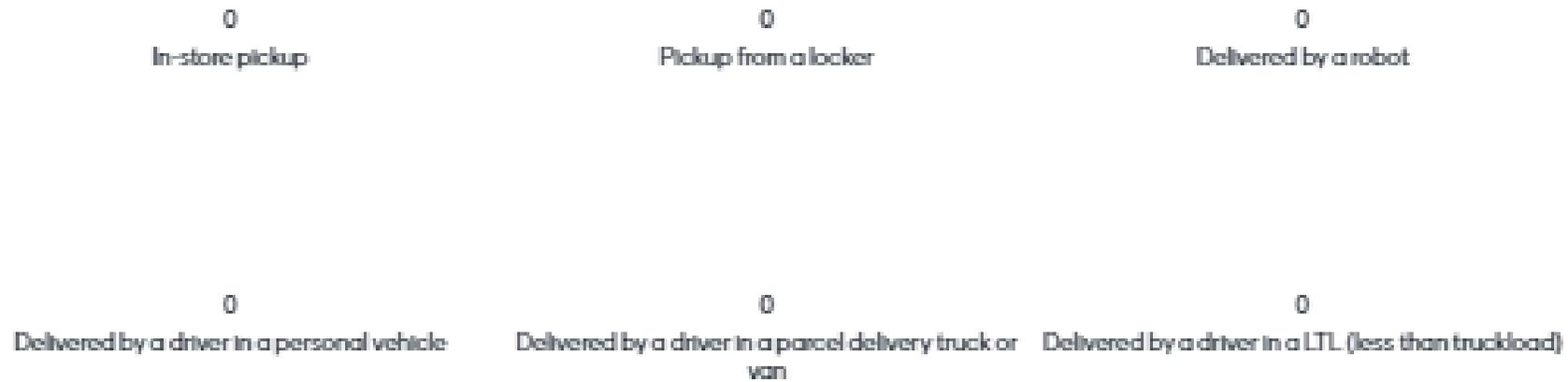


# ICEBREAKER POLL

Go to [www.menti.com](http://www.menti.com) and use the code 7197 1130

## How did you receive your last delivery?

Mentimeter



# ***WELCOME & HEADLINES***

*Jeffrey Hirsch*

*MDOT Assistant Secretary*

*Office of Transportation Policy Analysis & Planning*



STATE **FREIGHT** ADVISORY COMMITTEE

# SB: 291 TRUCK PLATOONING AND SB 726: PERSONAL DELIVERY DEVICES



# PORT OF BALTIMORE



# HOWARD STREET TUNNEL



# *STATE OF THE PRACTICE*



# *Efficient Freight Land Uses*

**José Holguín-Veras**

*Rensselaer Polytechnic Institute*



# Freight-Efficient Land Uses: Methodology, Strategies, and Tools

**José Holguín-Veras,**

**William H. Hart Professor**

**Director of the Center for Infrastructure, Transportation, and the Environment, and the  
VREF Center of Excellence for Sustainable Urban Freight Systems**

**[jhv@rpi.edu](mailto:jhv@rpi.edu)**

**Rensselaer Polytechnic Institute**

# Why Do we Need Freight Efficient Land-Uses?

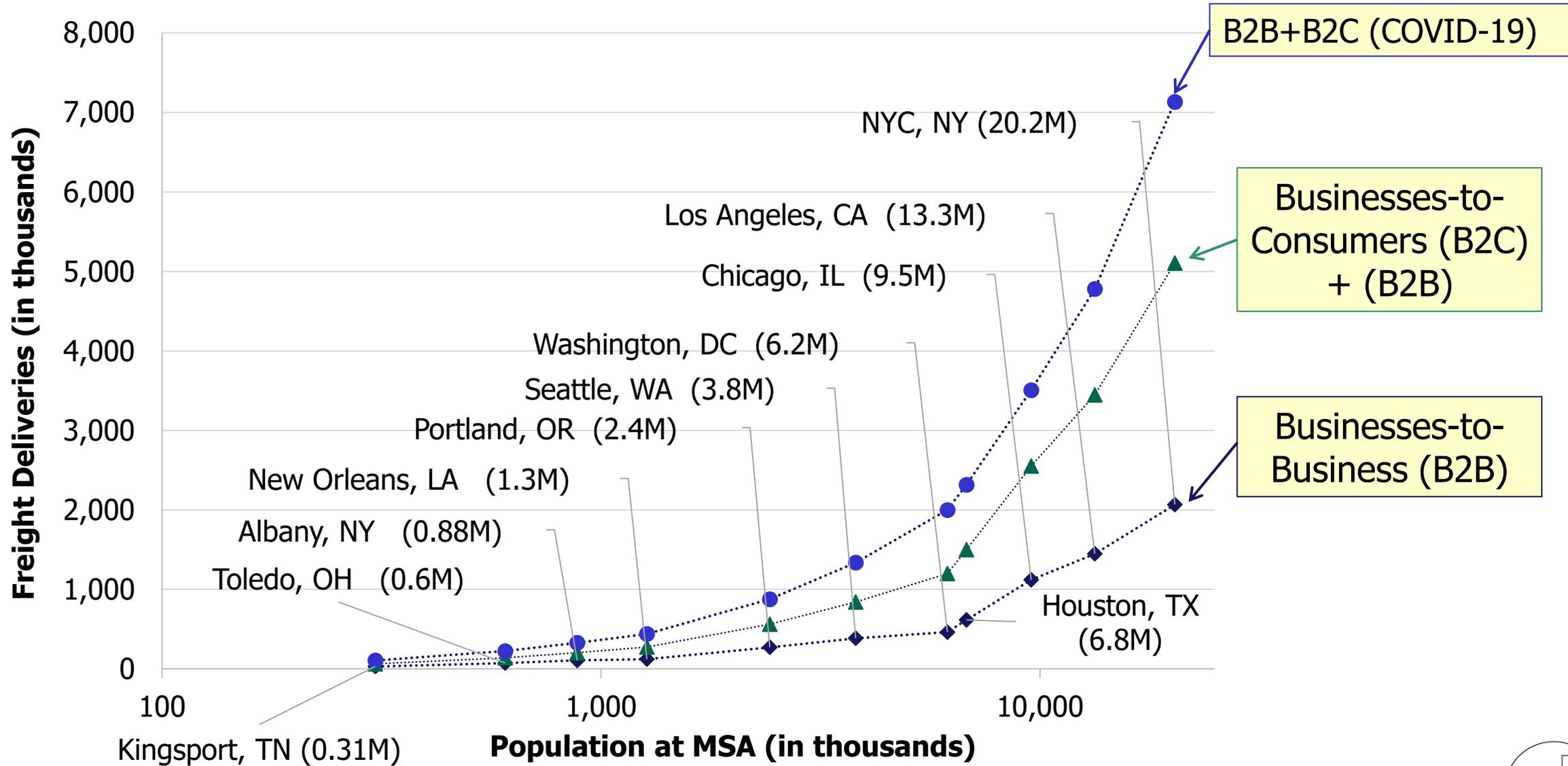


# The Key Goal of Freight Land Use Policy...

- **Goal:** To help maximize the benefits associated with the production and consumption of physical goods, and help minimize the negative externalities created by the associated freight vehicle traffic. To reach the goal, these **objectives** must be achieved:
  - Facilitate a seamless integration of freight activity into urban/suburban/rural fabrics
  - Help achieve quality of life and livability
  - Enhance economic competitiveness and efficiency
  - Reduce congestion, emissions, and related externalities
- Proactive freight land-use policy is more important than ever...



# This is What Became with Ecommerce (During COVID-19)



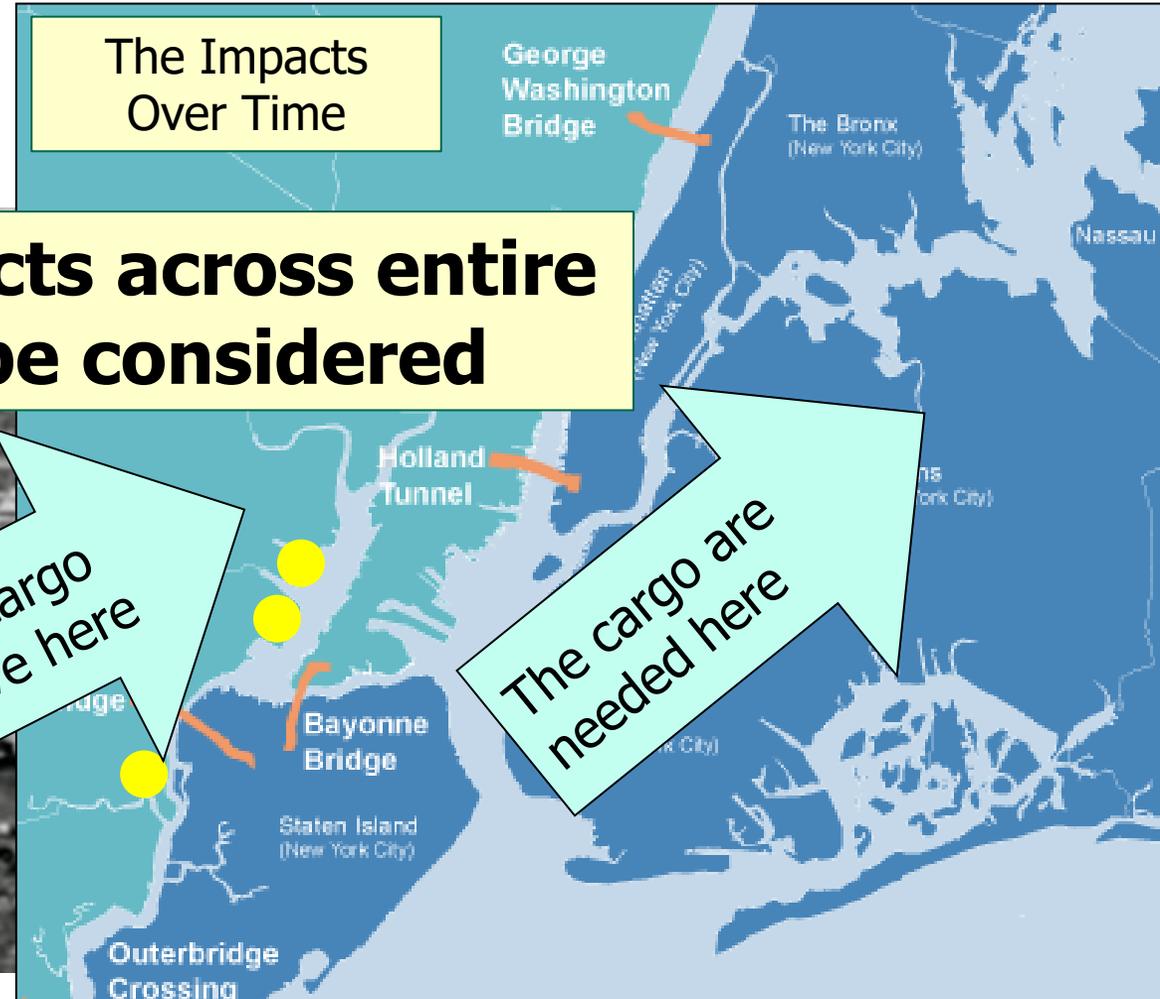
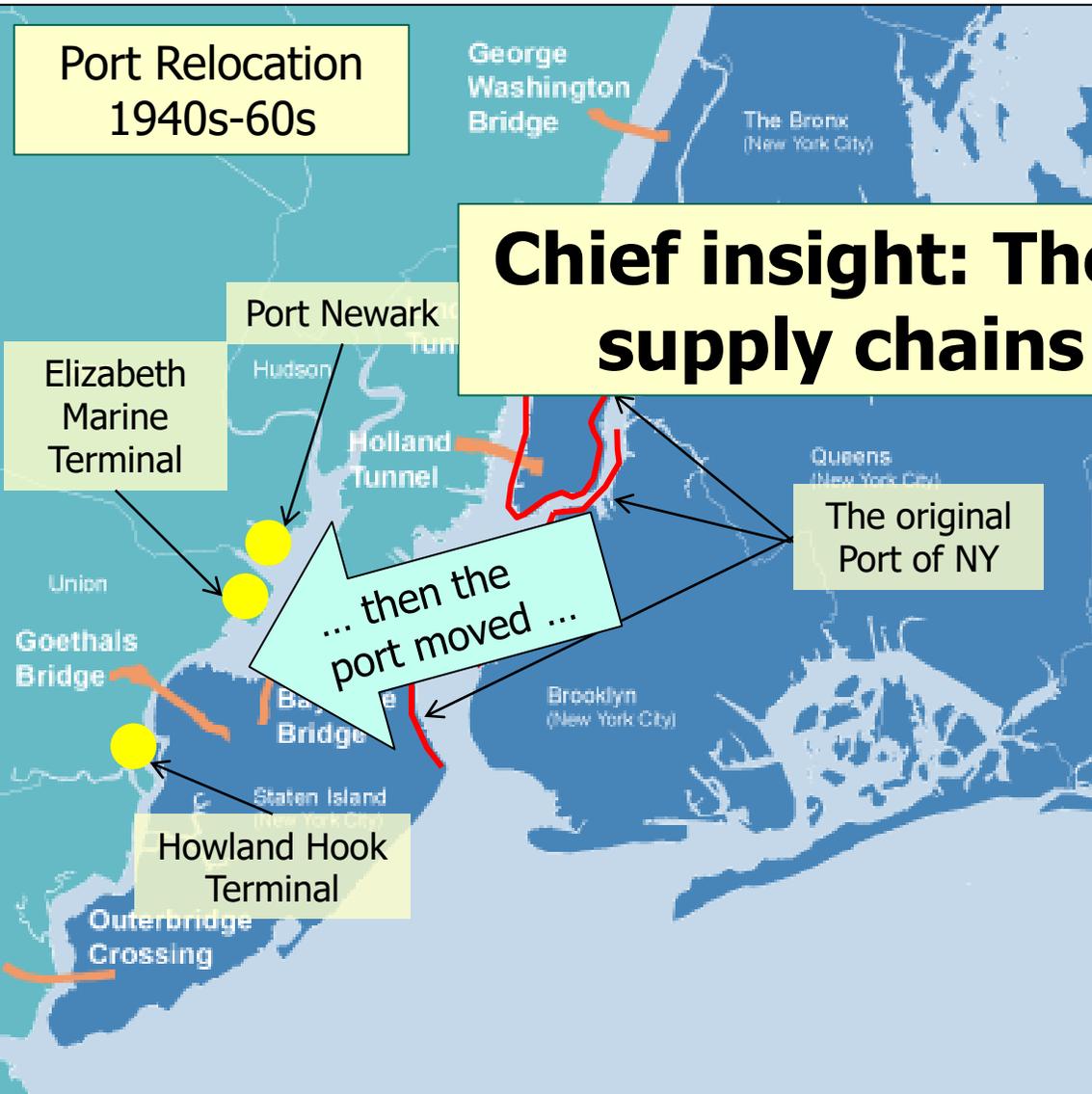
Estimates produced by the Freight and Service Trip Generation Software (FASTGS)



# Real-Life Impacts of Land-Use Decisions on Supply Chains



# Example: Port of New York / New Jersey



**Chief insight: The impacts across entire supply chains must be considered**

Transporting the cargo across the Hudson River may have created billions of dollars in congestion and externalities

Source: Port Authority of New York and New Jersey (2019)

# Freight-Efficient Land Uses: Concept and Principles



# Freight-Efficient Land Uses: An Aspirational Concept

- Freight-Efficient Land Uses (FELUs) are the land-use patterns that: *minimize the social costs (private plus external costs) associated with both the supply chains and the economic activities that consume and produce goods, at all stages of production and consumption; including reverse and waste logistics*
  - Private Costs: The production/logistics/facility costs incurred by the business and infrastructure operators, such as labor, land or buildings, equipment to operate DCs, and operation of freight vehicles
  - External costs: The impacts both positive and negative that affect those who are not directly involved in the activity, such as communities are congestion, pollution, noise, security, accidents, and aesthetic degradation produced by freight activities

# FELU Principles

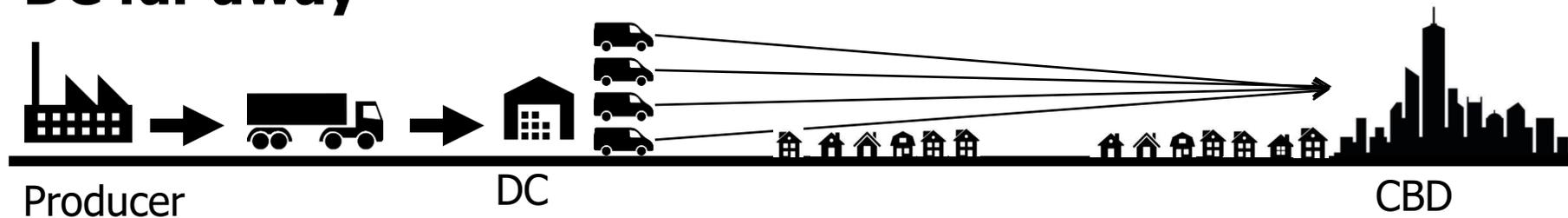
- Provide guidance for action, to be adapted to the local conditions:
  - *Minimize Social Costs*, to reduce the private and external costs of supply chains and their stages;
  - *Foster Compactness of Supply Chains*, to reduce the distance traveled at supply chain stages, up and downstream;
  - *Mitigate Supply Chain Externalities*, to reduce or eliminate, the externalities at supply chain nodes and Large Traffic Generators (LTGs);
  - *Seek Appropriate Solutions*, that recognize and account for local conditions; and
  - *Engage Stakeholders*, to ensure their points of view and concerns are addressed.



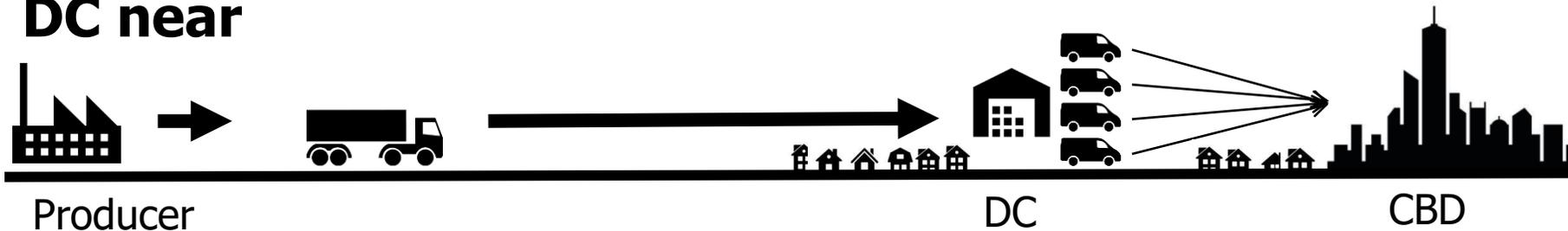
# Concept of Efficiency

- Imagine we need to locate a DC for distribution of internet deliveries
- Locating DCs far away from receivers increases VMT and all externalities

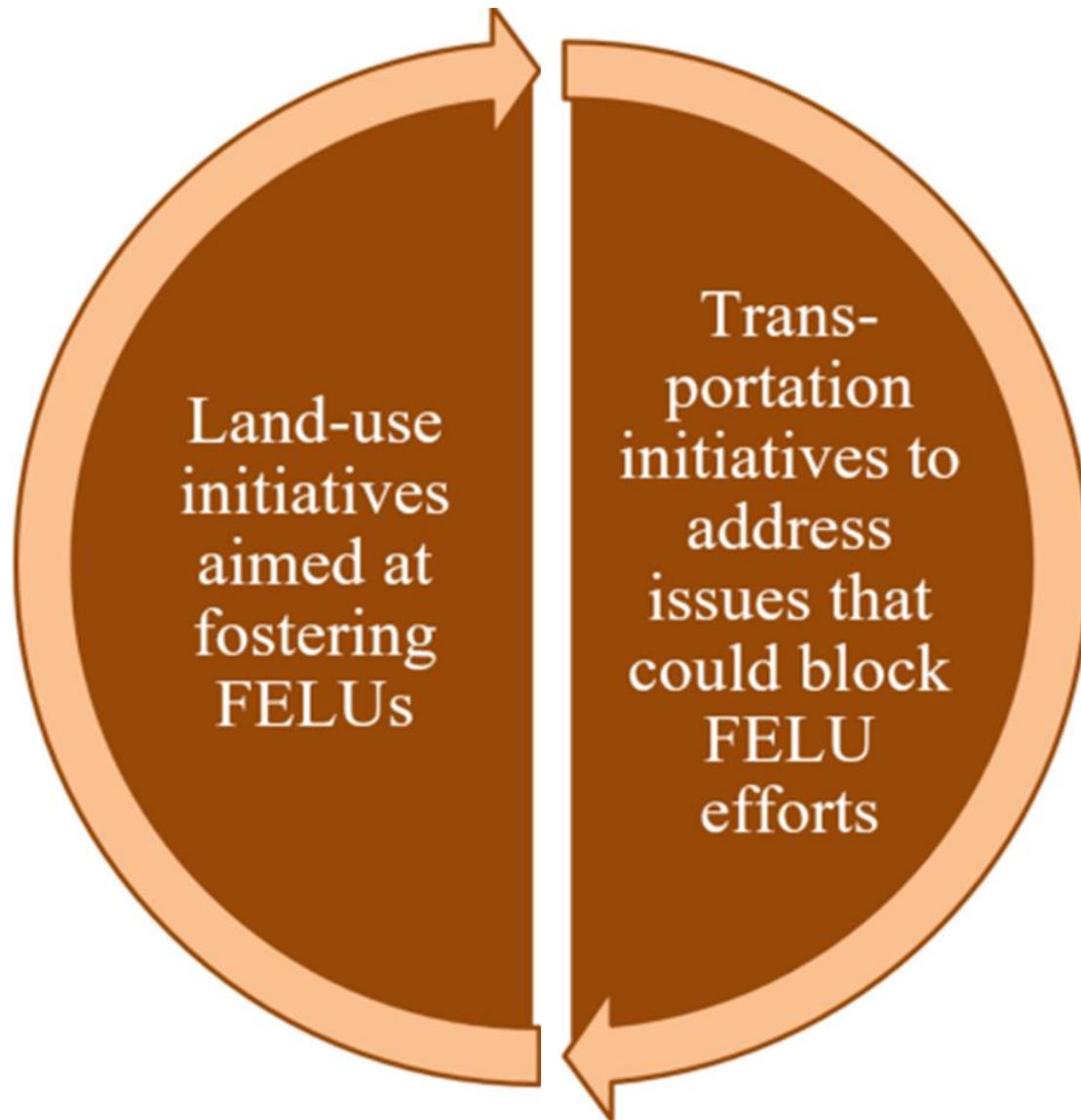
## DC far away



## DC near



# Exploit Synergies Between FELU and Transportation Initiatives

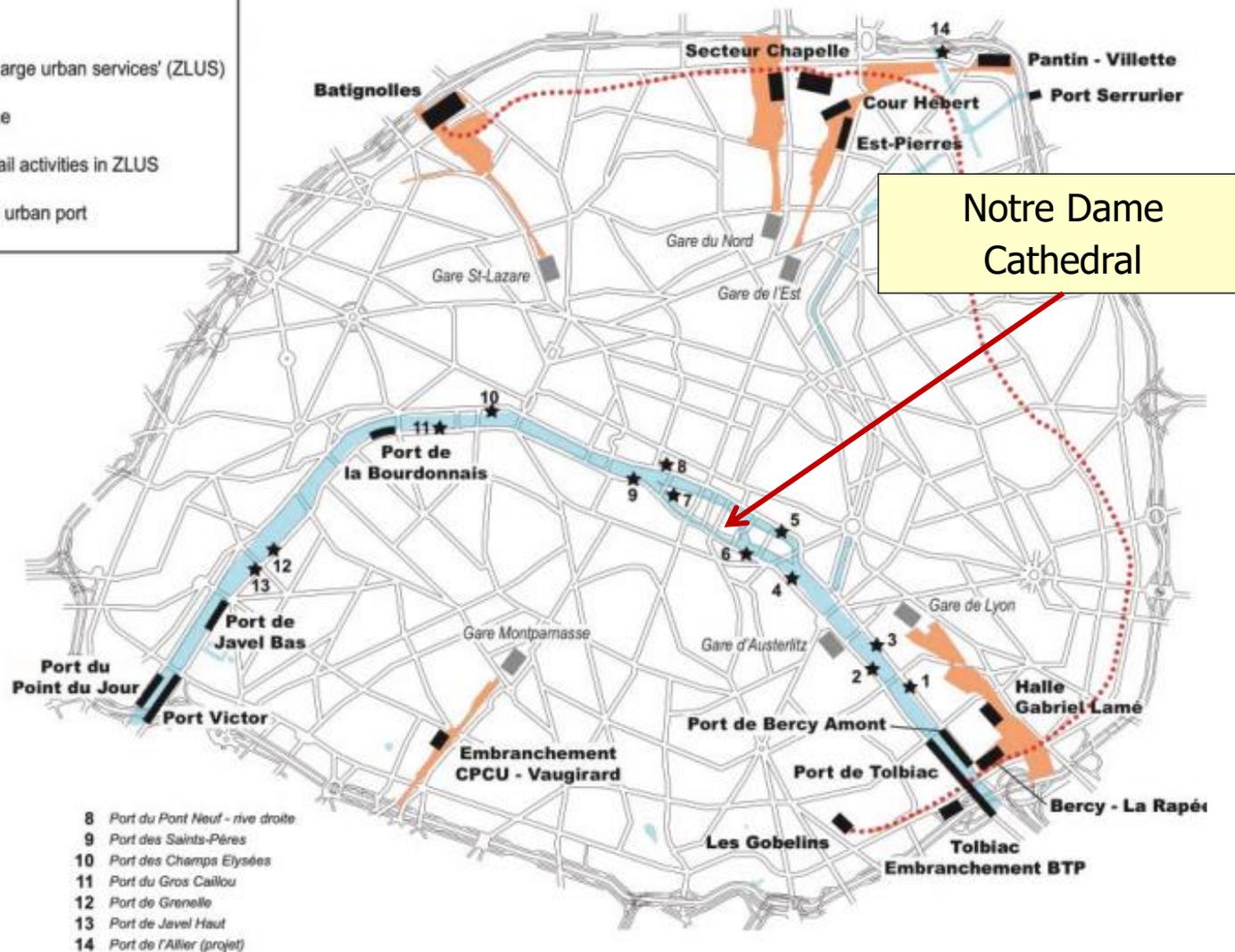


# Impossible? Not Quite, Take a Look at the City of Paris

## Logistics in the Paris land use master plan

### LEGEND

- Zones of 'large urban services' (ZLUS)
- Rail beltline
- Port and rail activities in ZLUS
- Mixed use urban port



Notre Dame  
Cathedral

Source: Diziain, D., R. B. and L. Dablanc (2012a). "How can we Bring Logistics Back into Cities? The Case of Paris Metropolitan Area " Procedia - Social and Behavioral Sciences 39: 267 – 281.

Webinar #18: Logistics and Land Use Planning: The Example of Paris  
<https://coe-sufs.org/wordpress/peer-to-peer-exchange-program/webinar18/>

# Tools to Foster FELUs



# Tools

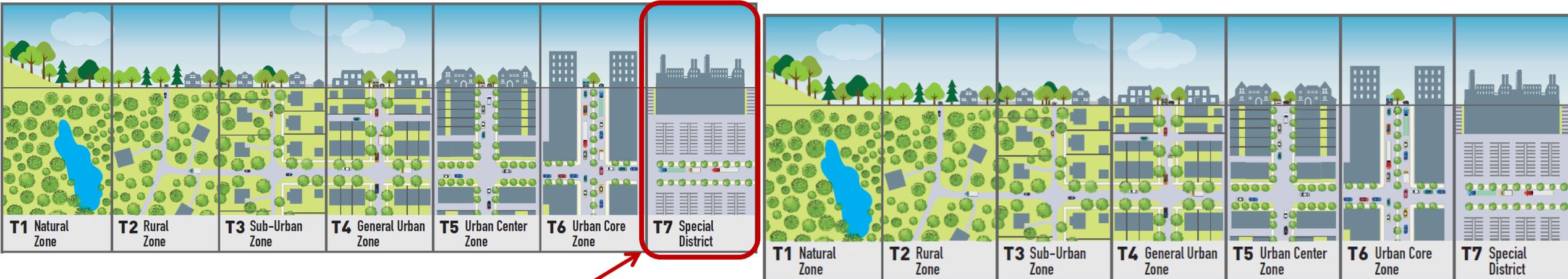
- A Guide for Effective FELU Planning and Decision-Making
  - Definition of the FELU process
  - FELU Urban-to-Rural TRANSECT
  - Identification of FELU initiatives
  - Integration of FELU and Transportation initiatives
- Decision-Support Tools
  - Initiative Selector
  - Behavioral Micro-simulation the assess impact of policies



# FELU Urban-to-Rural TRANSECT



# FELU Urban-to-Rural TRANSECT



Instead of Segregation, Seamless Integration is what is needed

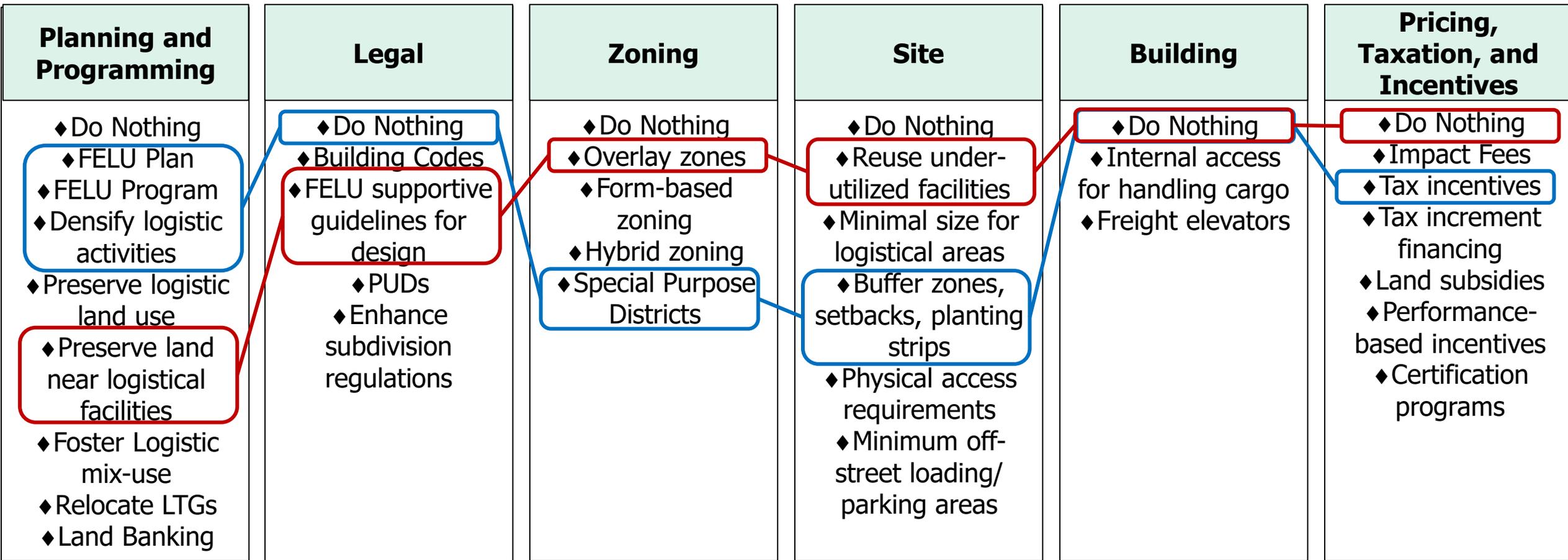
**Suggested Densities of Establishments**

|                             | T1                             | T2     | T3     | T4     | T5     | T6     | T7     |        |
|-----------------------------|--------------------------------|--------|--------|--------|--------|--------|--------|--------|
| <b>Sectors</b>              | Households/Residential         | ←————→ |        |        |        |        |        | ←————→ |
|                             | Retail Trade                   | ←————→ |        |        |        |        |        | ←————→ |
|                             | Accommodation/Food Services    | ←————→ |        |        |        |        |        | ←————→ |
|                             | Service-intensive Sectors      | ←————→ |        |        |        |        |        | ←————→ |
|                             | Light Manufacturing            | ←————→ |        |        |        |        |        | ←————→ |
|                             | Heavy Manufacturing            | ←————→ |        |        |        |        |        | ←————→ |
|                             | Agriculture                    | ←————→ | ←————→ |        |        |        |        | ←————→ |
| <b>Logistics Facilities</b> | Mining                         | ←————→ | ←————→ |        |        |        |        |        |
|                             | Freight Gateways               | ←————→ |        | ←————→ |        | ←————→ |        |        |
|                             | Gateways' Auxiliary Facilities | ←————→ | ←————→ |        | ←————→ | ←————→ |        |        |
|                             | Regional DCs                   | ←————→ |        |        |        |        |        |        |
|                             | Metropolitan DCs               | ←————→ |        |        |        |        |        |        |
| Urban DCs                   |                                |        |        |        |        |        | ←————→ |        |

# Catalog of FELU and Transportation Initiatives



# FELU Initiatives Provide Multiple Paths



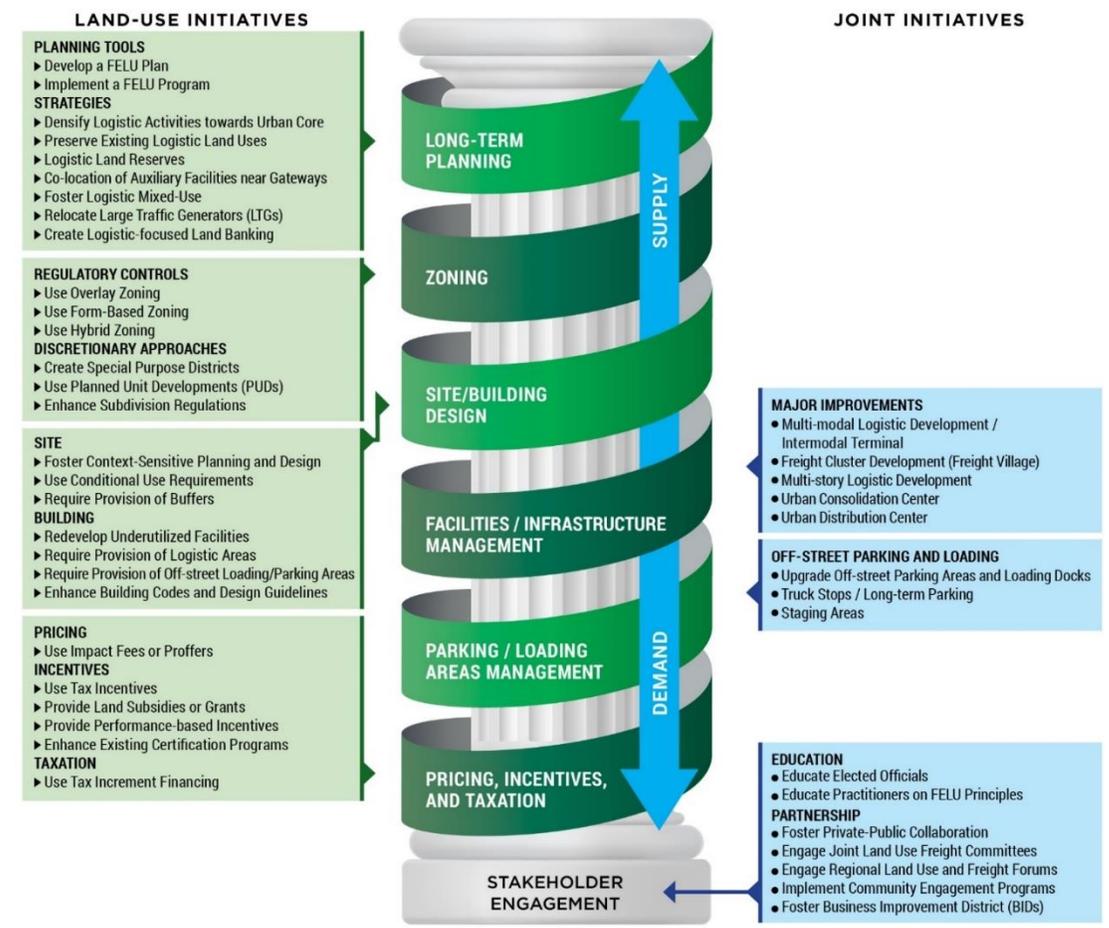
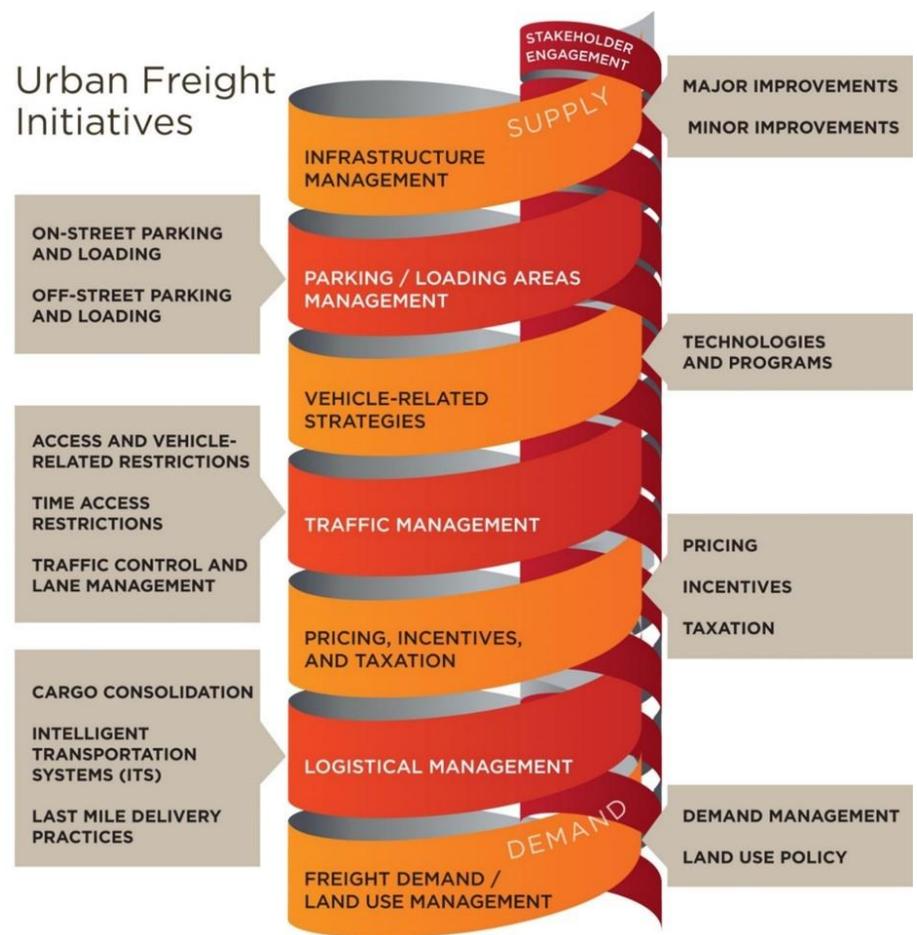
## Stakeholder Engagement



# Catalog of Initiatives Builds on RPI's Previous Research

- NCFRP 33 "Improving Freight System Performance in Metropolitan Areas"

- NCHRP 08-111 "Planning for Freight-Efficient Land Uses: Methodology, Strategies, and Tools"



# FELU Initiative Selector

**Please give it a try at:  
<https://cite.rpi.edu/iselector/>**





SEARCH

SCHOOL OF ENGINEERING

## Center for Infrastructure, Transportation, and the Environment (CITE)

- ABOUT US
- TEAM
- NEWS
- TRAINING & OUTREACH
- RESEARCH
- SOFTWARE & TOOLS
- COE-SUFS
- CONTACT US

### Initiative Selector for Fostering Freight System Performance, Energy Efficiency, and Freight-Efficient Land Use

This application has been co-funded by the Transportation Research Board's (TRB) National Cooperative Freight Research Program Project - Improving Freight System Performance in Metropolitan Areas and the VREF Center of Excellence for Sustainable Urban Freight Systems.

Select aspects of the traffic problems you seek solutions to on the left. The results will contain links to all the unique documents describing potential solutions.

Type of Initiatives

- Energy
- Land Use
- Stakeholder Engagement
- Transportation

The Energy tab is not fully functional yet

Search within results

| Select                     | Initiative Name | PDF | Initiative Type | Public Investment | Private Investment | Implementation Time | Risk of Unintended Consequences | Group |
|----------------------------|-----------------|-----|-----------------|-------------------|--------------------|---------------------|---------------------------------|-------|
| No data available in table |                 |     |                 |                   |                    |                     |                                 |       |

Showing 0 possible solutions

# Once you specify the issue(s), you get suggestions...

## Type of Initiatives

- Energy  
 Land Use  
 Stakeholder Engagement  
 Transportation

## Nature of the Problem

- Select All  
 Congestion  
 Livability Issues  
 Logistics Sprawl  
 Noise  
 Pollution  
 Safety  
 Systematic Inefficiencies

## Geographic Scope

- Select All  
 City/MSA  
 Area

## Initiative Selector for Fostering Freight System Performance, Energy Efficiency, and Freight-Efficient Land Use

This application has been co-funded by the Transportation Research Board's (TRB) National Cooperative Freight Research Program Project - Improving Freight System Performance in Metropolitan Areas and the VREF Center of Excellence for Sustainable Urban Freight Systems.

Select aspects of the traffic problems you seek solutions to on the left. The results will contain links to all the unique documents describing potential solutions.

View Selected

Clear Selected

Search within results

| Select                   | Initiative Name   | PDF   | Initiative Type | Public Investment | Private Investment | Implementation Time | Risk of Unintended Consequences | Group              |
|--------------------------|---|---|-----------------|-------------------|--------------------|---------------------|---------------------------------|--------------------|
| <input type="checkbox"/> | <a href="#">Co-Location of Auxiliary Facilities Near Major Gateways</a> |  | Land Use        | Low / High        | Low / High         | Medium / Long       | Low                             | Long-Term Planning |
| <input type="checkbox"/> | <a href="#">Create Logistic-Focused Land Banking</a>                    |  | Land Use        | Low / High        | None               | Medium / Long       | Low                             | Long-Term Planning |
| <input type="checkbox"/> | <a href="#">Create Special Purpose Districts</a>                        |  | Land Use        | Low               | Low / High         | Short               | Moderate                        | Zoning             |
| <input type="checkbox"/> | <a href="#">Densify Logistic Activities Towards the Urban</a>           |  | Land Use        | Moderate / Very   | High               | Medium / Long       | Low / Moderate                  | Long-Term          |

| Create Special Purpos  |   |
|--|---|
| <b>Description:</b> Special districts or special purpose districts with def meet the specific needs of a given area. Most districts are develop particular business activity. These districts can have governing bc for example, restrict certain building types, or support truck traffi of freight, reduce logistics sprawl, and enhance livability. |   |
| <b>Geographic scope:</b> City/MSA, Area, Corridor, Parcel  | <b>Initiati</b>   |
| <b>Problem source:</b> Inadequate infrastructure, Large trucks, Large t  |   |
| <b>Expected costs and level of effort:</b> Implementation of special di consider the local needs of an area, which may require a moderat governing body, so efforts may include selecting board member regional master plans. Costs of creating a special purpose district a and governing body.   |   |
| <b>Stakeholders involved:</b> Local communities, Developers, Region lative Branch  |   |
| <b>Time to fruition:</b> 6-10 years  |   |
| <b>Advantages:</b>   | <b>Disac</b>  |
| <ul style="list-style-type: none"> <li>• Supports localized needs</li> <li>• Offers more timely and responsive planning than larger governmental areas</li> <li>• Enhances freight efficiency</li> </ul>   | <ul style="list-style-type: none"> <li>• Re</li> <li>• C</li> </ul> |

**Examples:**

- Special Hunts Point District in South Bronx, New York. This c the food sector and provides a buffer between industry and res



Source: (City of N

- Freight District in Portland, Oregon. This district designates st access by, for example, removing geographic constraints. (City o

**Related land use initiatives:** Overlay Zoning to Foster FELU, H Initiatives, Freight Cluster Development

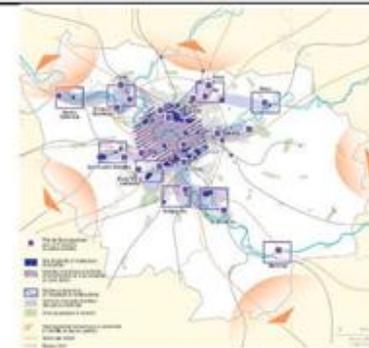
**Complementary transportation initiatives:** Parking and Load ment Initiatives

**References:** (City of Portland 2006, City of New York 2008, S Local Agency Formation Commission 2019)

| Develop a Freight-Efficient Land Use (FELU) Plan   |  |
|--|--|
| <b>Description:</b> A FELU plan integrates freight activity considerations into a land-use plan so that potential negative impacts from freight activities can be identified at an early planning stage and mitigation plans can be implemented in advance. Addressing logistics land use through comprehensive planning will improve the efficiency of freight activity, and allow land use to be harmonized for all economic sectors while minimizing costs due to externalities caused by freight transportation.   |  |
| <b>Geographic scope:</b> City/MSA, Area, Corridor  | <b>Initiative group:</b> Long-Term Planning: Planning Tools  |
| <b>Problem source:</b> Inadequate infrastructure, All traffic, Urban deliveries, Double parking, Other parking issues, Sidewalk conflicts, Incompatible land use   |  |
| <b>Expected costs and level of effort:</b> The main effort to develop a FELU plan is engaging stakeholders, since the cost of developing the plan is low. However, the cost of implementing a land-use plan fluctuates depending on the geographic area. Commonly, land costs in urban areas are considerably high. These larger upfront investments of the public sector are balanced with the significant reduction of externalities such as VMT or emissions. High levels of effort and coordination among all stakeholders are required to accurately and effectively plan for logistic land uses. |  |
| <b>Stakeholders involved:</b> Local Communities, Producers, Receivers, Departments of Transportation, Regional Planning Agencies, Planning Commission  |  |
| <b>Time to fruition:</b> 6-10 years  |  |
| <b>Advantages:</b>   | <b>Disadvantages:</b>  |
| <ul style="list-style-type: none"> <li>• Organizes future land development</li> <li>• Increases employment opportunities</li> <li>• Decreases costs for goods and services</li> <li>• Beneficial to local economy</li> <li>• Improves community livability</li> </ul>  | <ul style="list-style-type: none"> <li>• Extensive stakeholder coordination is necessary</li> <li>• The plan has to be revised and updated over time</li> <li>• Promotion of education of elected officials to demonstrate the impact of a FELU plan is necessary</li> </ul> |

**Examples:**

- Paris, France. Three regional plans were developed and reserved areas for freight infrastructure and (re)development in the metropolitan region. This allows the interaction between logistic intensive land uses and the rest of land uses. (Dablanc, 2015b)



Source: (Dablanc, 2015b)

**Related land use initiatives:** All land-use initiatives

**Complementary transportation initiatives:** All transportation initiatives

**References:** (Federal Highway Administration, 2012b; Dablanc, 2015b)

|   |
|---|
| <b>wards the Urban Core</b>   |
| reight traffic. Allocating spaces for logistical facilities facilities and retail locations. Complementary to this ics of roads to allow large vehicle trucks to serve the ncies, logistics sprawl, livability issues due to freight              |
| <b>itive group:</b> Long-Term Planning: Strategies  |
| or logistics facilities. Also, to control the activities on -logistic activities. Lastly, it might be necessary some for the private firms they must be willing to relocate to r in the city center. And, lastly cost of operations will n cores. |
| rs, Developers, Regional Planning Agencies, Building  |

**advantages:**

Higher facility costs

Potential opposition from local residents

May result in increased urban congestion

of logistics facilities into the city. The latest Parisian as (Dablanc 2017). In addition, there has been a re—in urban areas as a micro-distribution center. As an cility, now operated by Chronopost express—a private deliveries are done using a fleet of electric and diesel



blanc 2017)

ogistic Mixed-Use, Urban Distribution Centers, Multi-ties

. initiatives

# Freight and Service Trips Generation Software (FASTGS)

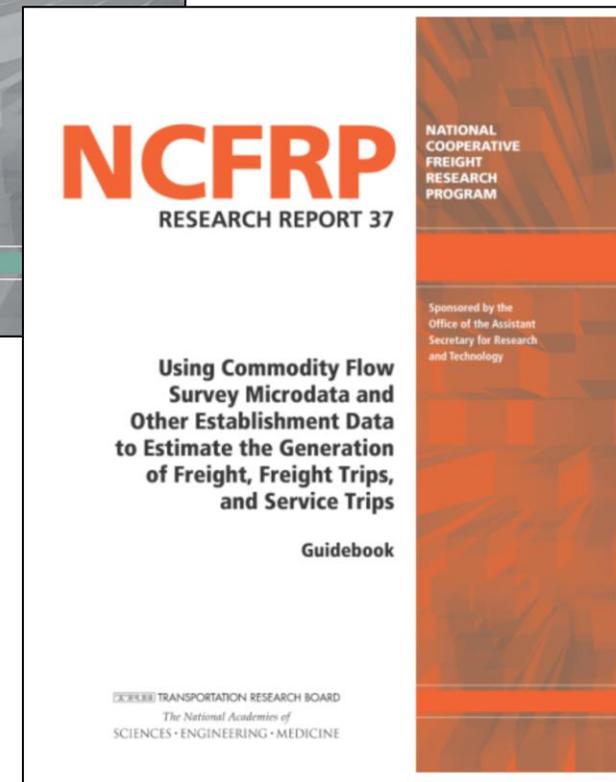
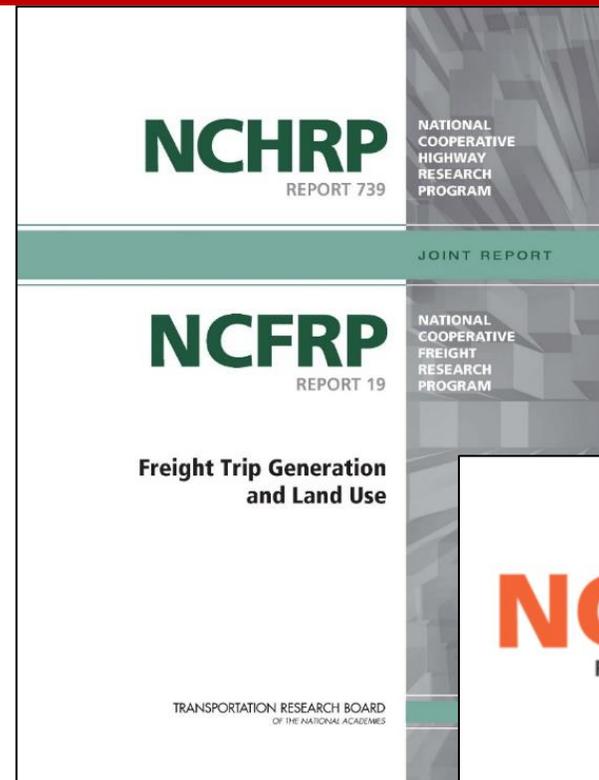


# Freight Trip Generation Techniques

- Based on Establishment Surveys
  - Collected data about deliveries received and shipments sent out
  - Estimated models to predict deliveries and shipments using employment
  - Freight-Trip Generation is estimated from the deliveries and shipments
  - More accurate, flexible, and transferable than any other modeling alternative

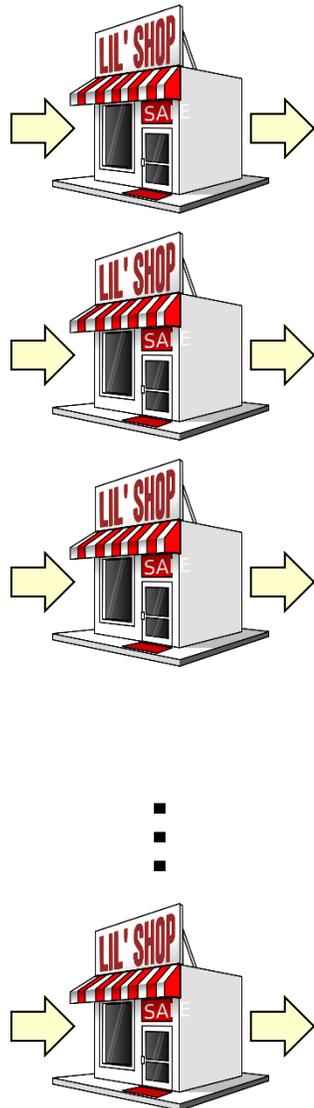
$$FTA = \frac{FD}{CF_{FTA}} = \frac{\text{Deliveries Received}}{\text{Avg. Deliveries per trip}}$$

$$FTP = \frac{FS}{CF_{FTP}} = \frac{\text{Shipments Sent Out}}{\text{Avg. Shipments per trip}}$$



# Models can be aggregated...

## Establishments



## Buildings



## Census tracts ... ZIP Codes

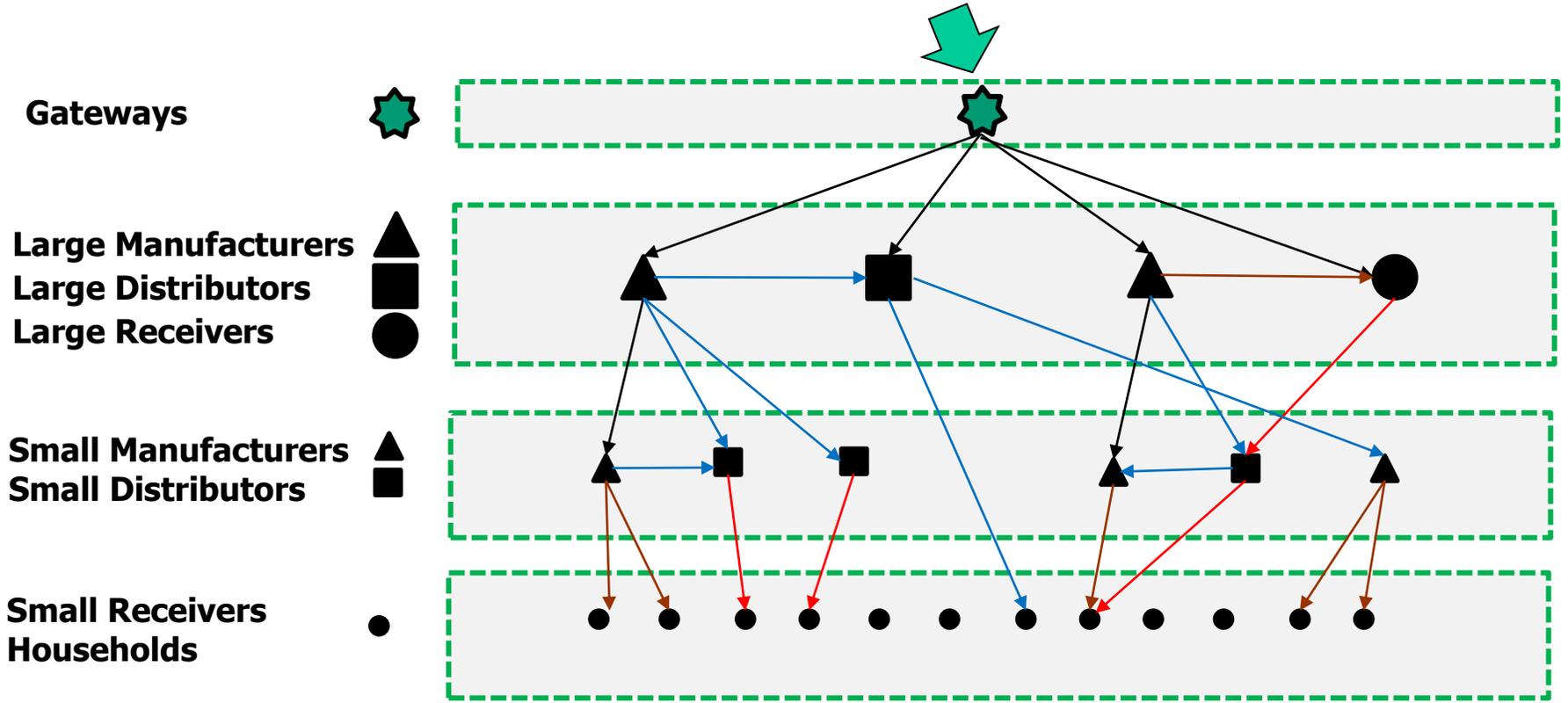


# Behavioral Micro-Simulation (BMS)



# Behavioral Micro-Simulation (BMS-FELU)

- The BMS-FELU considers the various stages of the supply chains at the level of detail required to analyze effectiveness of FELU initiatives



- It reads employment transportation network data and produces estimates of land-use efficiency

# Acknowledgements

- National Cooperative Highway Research Program, Dr. William Rogers, and Project Panel
- Rensselaer Polytechnic Institute:
  - Cara Wang,
  - Diana G. Ramirez-Rios,
  - Juvena Ng,
  - Jeffrey Wojtowicz
- HDR: Daniel Haake
- University at Albany: Catherine T. Lawson
- ATRI
- Caliper

Thanks!



# *Transportation, Economic and Workforce Development*

*Debbie Bowden*

*Maryland Department of Transportation Statewide Freight Advisory  
Committee*



STATE **FREIGHT** ADVISORY COMMITTEE



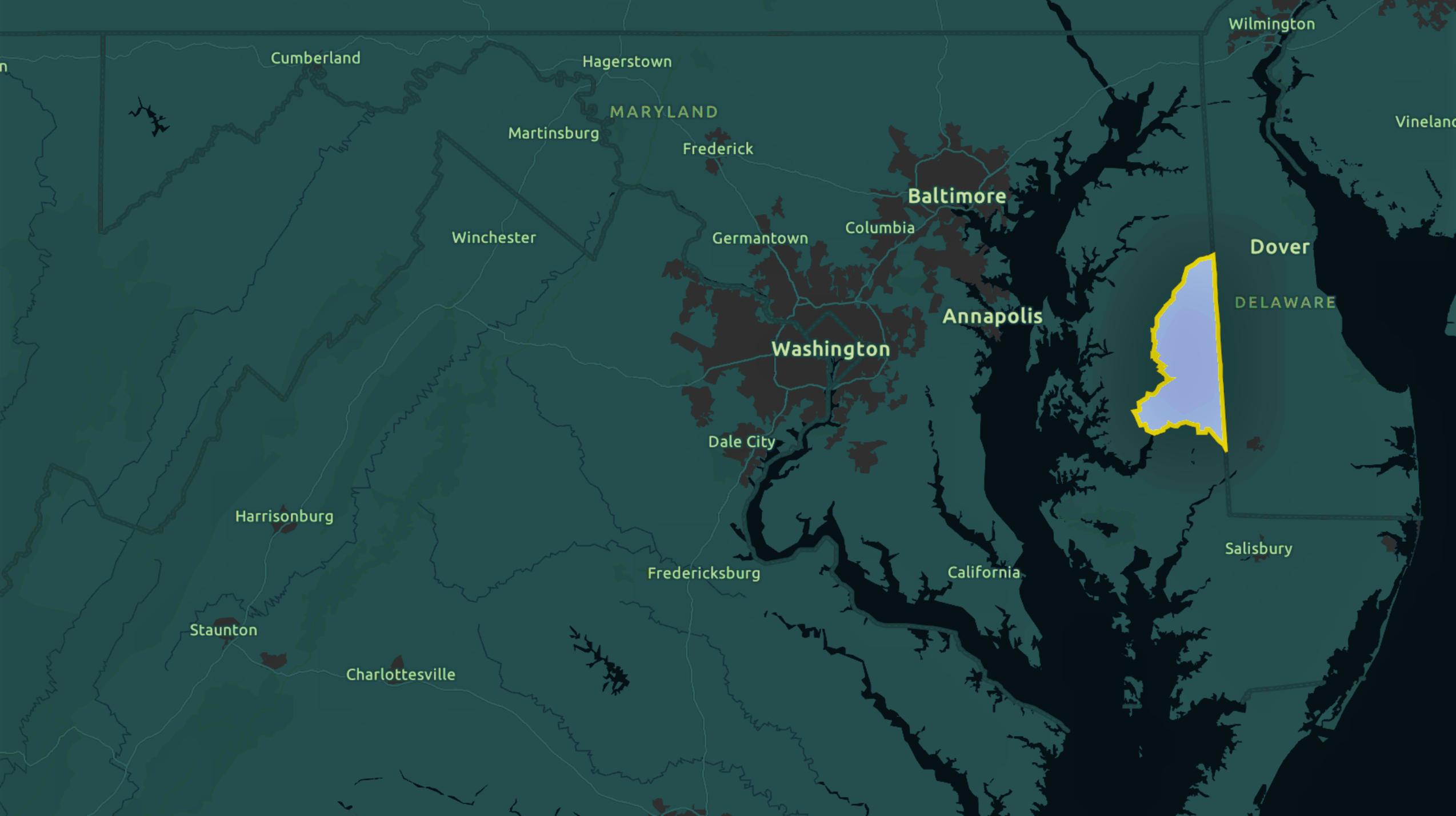
*CAROLINE COUNTY, MARYLAND*  
 *TRANSPORTATION*  
 *ECONOMIC AND*  
*WORKFORCE*  
*DEVELOPMENT*

DEBBIE BOWDEN

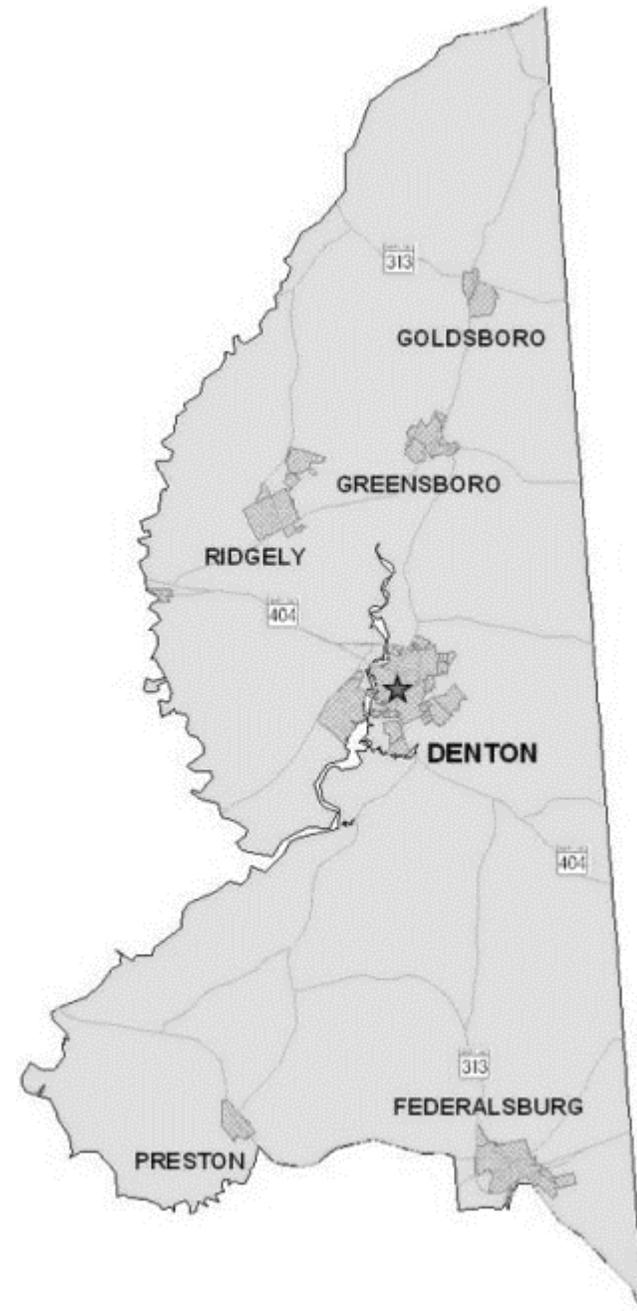
DIRECTOR OF ECONOMIC DEVELOPMENT

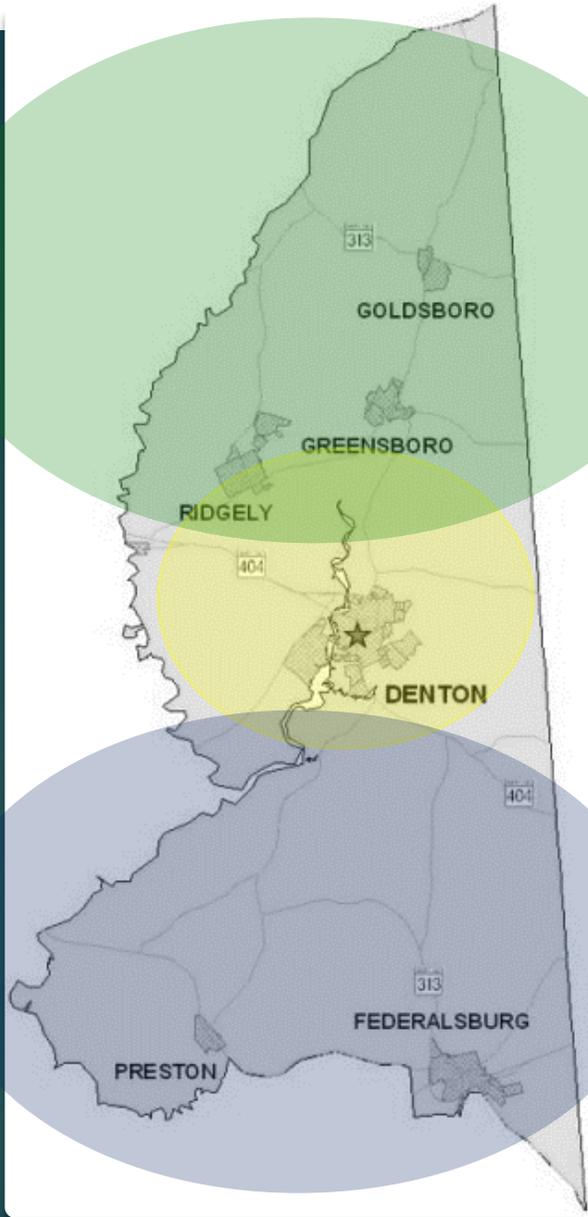
MARYLAND DEPARTMENT OF TRANSPORTATION STATEWIDE FREIGHT ADVISORY COMMITTEE

APRIL 6, 2022



- ▶ 33,293 population (2020)
- ▶ 326 square miles
- ▶ Population per square mile 102
- ▶ Over 650 establishments (2019)
- ▶ Over 7500 total employment (2019)





Farming intensive

Amenities & services

Logistics and freight

# Connecting the County

State Highways and  
County Roads

Active Short line Railroad

Airport



***WORKFORCE  
TRANSPORTATION***



***COMMUNITY  
TRANSIT***

A blurred, blue-tinted photograph of an industrial or warehouse area. In the foreground, a semi-truck is parked on a paved surface. The background shows large industrial buildings and trees. The overall scene is out of focus, creating a sense of depth and activity.

# ***FREIGHT TRANSPORTATION***

# Business Sentiment Survey

June 2021 survey responses

SENTIMENT

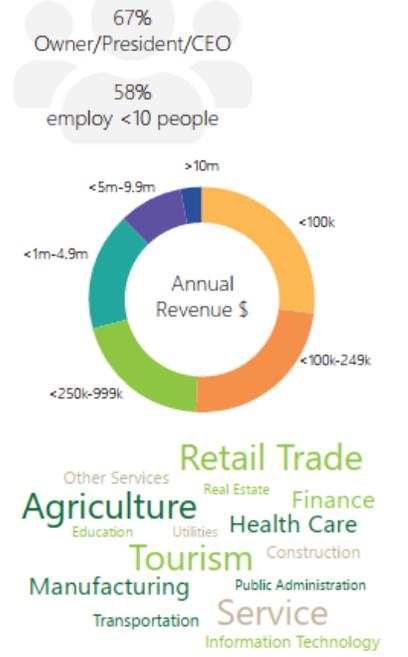


## IMPROVING

Strategies for Mitigating Future Disruptions



## PARTICIPANTS



## BARRIERS

Highest barriers to starting and expanding a businesses?



We want to hear from you!  
Email us at [delmarvaindex@gmail.com](mailto:delmarvaindex@gmail.com) to participate in the next business survey.

# Business Sentiment Survey

December 2021 survey responses

SENTIMENT

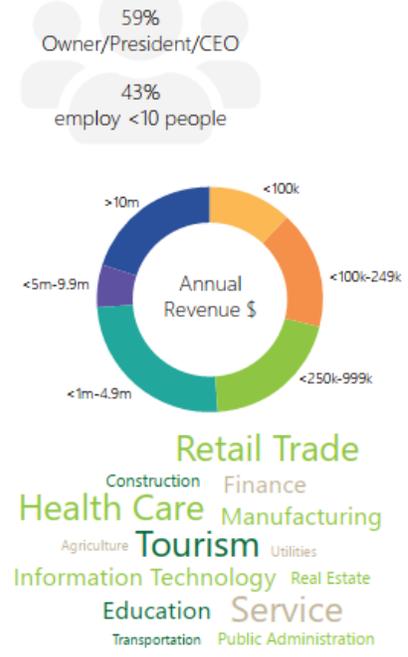


## IMPROVING

Strategies for Mitigating Future Disruptions



## PARTICIPANTS



## BARRIERS

Highest barriers to starting and expanding a businesses?

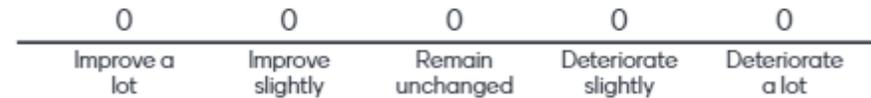


We want to hear from you!  
Email us at [delmarvaindex@gmail.com](mailto:delmarvaindex@gmail.com) to participate in the next business survey.

Go to [www.menti.com](https://www.menti.com) and use the code 7197 1130

In the next 12 months, conditions with the Supply Chain will:

 Mentimeter



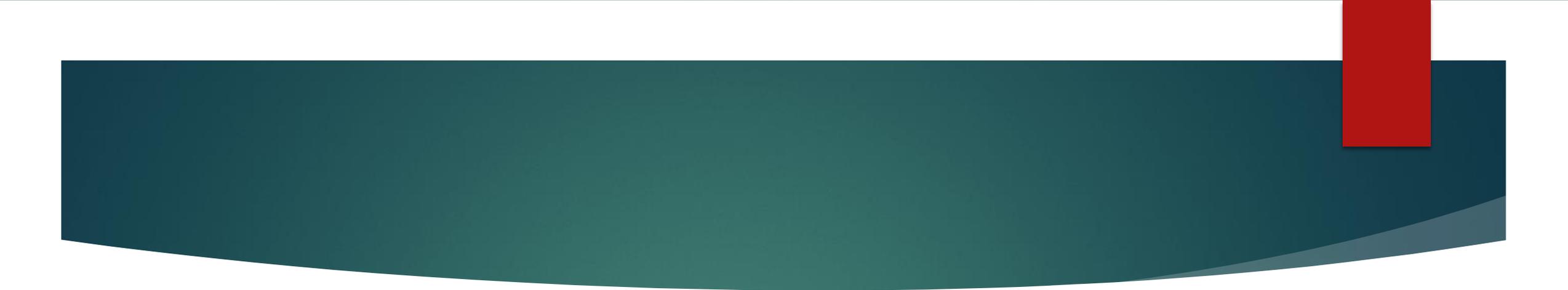
Go to [www.menti.com](https://www.menti.com) and use the code 7197 1130

# Supply Chain barriers impact business expansion:

 Mentimeter

- 1st | No negative impact
- 2nd | Minor negative impact
- 3rd | Some negative impact
- 4th | Fair amount of negative impact
- 5th | Significant negative impact





Debbie Bowden

Director

Caroline County Economic Development

[dbowden@carolinemd.org](mailto:dbowden@carolinemd.org)

410-829-2763

# FREIGHT POLL

Go to [www.menti.com](http://www.menti.com) and use the code 7197 1130

What freight land use or workforce program, project, or initiative would you most like to see advanced?

 Mentimeter



# ***FEDERAL UPDATE***



STATE **FREIGHT** ADVISORY COMMITTEE

# ***Federal Highway Administration Updates***

*Tiffany Julien and Brandon Wilcox*



STATE **FREIGHT** ADVISORY COMMITTEE

# Federal Highway Administration Update

---

Maryland State Freight Advisory Committee Meeting  
April 6, 2022



U.S. Department  
of Transportation

**Federal Highway  
Administration**

# Outline

- Freight Provisions of Bipartisan Infrastructure Law
- State Freight Plans
- Changes to National Highway Freight Program
- Truck Size and Weight Provisions
- Local and Regional Project Assistance Program
- Changes to INFRA Program
- National Infrastructure Project Assistance Program
- Reduction of Truck Emissions at Port Facilities Program
- Changes to Railway-Highway Crossings Program

# Freight Provisions of Bipartisan Infrastructure Law

| Topic   | Provisions in the new law   |
|---|---|
| Office of Multimodal Freight Infrastructure and Policy (§21101) | <ul style="list-style-type: none"> <li>• Establishes an office in OST to carry out a national multimodal freight policy and related activities</li> <li>• Led by new Assistant Secretary for Multimodal Freight</li> <li>• Secretary may consolidate any DOT office/function within new OST office</li> <li>• Will administer INFRA, Local and Regional Project Assistance Program (RAISE), and new discretionary grant programs</li> </ul> |
| National Freight Strategic Plan (§21102)                        | <ul style="list-style-type: none"> <li>• Adds new elements related to impacts of freight movement on environment and rural, underserved and historically disadvantaged communities, resilience, decarbonization, and economic growth</li> </ul>   |
| State freight plans (§21104)                                    | <ul style="list-style-type: none"> <li>• Requires State freight plans to include several new requirements in categories such as adequacy of commercial motor vehicle parking and rest facilities, supply chain cargo flows, inventory or commercial ports, impacts of e-commerce, and strategies and goals to address impacts of freight movement on the environment</li> </ul>   |
| State freight advisory committees (§21107)                      | <ul style="list-style-type: none"> <li>• Expands the list of organizational perspectives to be represented on a state freight advisory committee</li> <li>• Establishes qualifications for advisory committee members</li> </ul>  |

## State Freight Plans (49 U.S.C. §70202)

| Topic   | Provisions in the new law   |
|---|---|
| Additional content for State freight plans              | <ul style="list-style-type: none"> <li>• Commercial motor vehicle parking facilities assessment conducted by the State;</li> <li>• Supply chain cargo flows in the State by mode of transportation;</li> <li>• Commercial ports in the State;</li> <li>• Consideration of recommendations by multi-State freight compact;</li> <li>• Impacts of e-commerce on freight infrastructure ;</li> <li>• Considerations of military freight;</li> <li>• Strategies and goals to decrease—               <ul style="list-style-type: none"> <li>○ Severity of impacts of extreme weather and natural disasters;</li> <li>○ Impacts of freight on local air pollution;</li> <li>○ Impacts on flooding and stormwater runoff; and</li> <li>○ Impacts on wildlife habitat loss;</li> </ul> </li> </ul> |
| Commercial Motor Vehicle Parking Facilities Assessments | <ul style="list-style-type: none"> <li>• Capability of the State, with private sector, to provide adequate parking facilities and rest facilities for commercial motor vehicles;</li> <li>• Volume of commercial motor vehicle traffic in State; and</li> <li>• Areas with shortage of commercial motor vehicle parking facilities, including analysis of underlying causes.</li> </ul>   |
| Priority for resilience                                 | <ul style="list-style-type: none"> <li>• Reliability or redundancy of freight transportation; or</li> <li>• Ability to rapidly restore access and reliability.</li> </ul>   |

# Changes to National Highway Freight Program (NHFP)

| Topic                                     | Changes   |
|---|---|
| Freight intermodal/ freight rail projects | <ul style="list-style-type: none"><li>• State may use ≤30% (vs. 10% under current law) of NHFP funding on freight intermodal or freight rail projects, subject to certain restrictions</li></ul>  |
| Locks, dams, marine highways              | <ul style="list-style-type: none"><li>• Adds eligibility for modernization/rehab of a lock and dam or a marine highway corridor, connector, or crossing (including an inland waterway corridor, connector, or crossing) that are:<ul style="list-style-type: none"><li>○ functionally connected to the National Highway Freight Network; and</li><li>○ likely to reduce on-road mobile source emissions</li></ul></li></ul> |
| Critical freight corridors                | <ul style="list-style-type: none"><li>• Allows the designation of more miles as critical rural freight corridors and critical urban freight corridors</li></ul>   |

# Truck Size and Weight Provisions

| Program/topic                     | Provisions in the new law  |
|-----------------------------------|--|
| Interstate Weight Limits (§11515) | <p>Sec.127 (l),(v) &amp;(w) of title 23, U.S.C. is amended for operation of certain vehicles that could operate legally on segments before the date of Interstate System Designation, to continue to operate on that segment, without regard to any weight limit requirements under subsection Sec. 127 (a). Routes Include;</p> <ul style="list-style-type: none"> <li>• <b>Kentucky</b> -The Louie B. Nunn Cumberland Expressway from the interchange with I-65 in Barren County, KY, east to the interchange with U.S. Highway 27 in Somerset, KY.</li> <li>• <b>North Carolina</b> - U.S. Route 17, 29, 52, 64, 70, 74, 117, 220, 264, or 421.</li> <li>• <b>Oklahoma</b> - Any segment of the highway referred to in paragraph (96) of section 1105(c) of the Intermodal Surface Transportation Efficiency Act of 1991 (Public Law 102–240; 105 Stat. 2032).</li> </ul> |
|                                   |  |

## [NEW] Local and Regional Project Assistance Program\* (discretionary)

|                   |   |
|-------------------|---|
| Purpose           | Projects with a significant local or regional impact that improve transportation infrastructure   |
| Funding           | \$7.5 B (FY 22-26) in advance appropriations from the GF  |
| Eligible entities | <ul style="list-style-type: none"> <li>• State (and DC)</li> <li>• Territory</li> <li>• Local government</li> <li>• Public agency or publicly chartered authorities established by one or more States</li> <li>• Special purpose district or public authority with transportation function</li> <li>• Federally-recognized Indian Tribe</li> <li>• Transit agency</li> </ul>  |
| Eligible projects | <ul style="list-style-type: none"> <li>• Highway/bridge projects eligible under title 23</li> <li>• Public transportation projects</li> <li>• Passenger or freight rail projects</li> <li>• Port infrastructure investments</li> <li>• Surface transportation components of an airport</li> <li>• Projects for investment in surface transportation facilities on Tribal land</li> <li>• Projects to replace or rehabilitate a culvert or certain projects to prevent stormwater runoff</li> <li>• Any other surface transportation projects considered necessary to advance program goals</li> </ul> |

\* Codifies the existing Rebuilding American Infrastructure with Sustainability and Equity (RAISE) program previously established through appropriations acts (and formerly known as TIGER and BUILD).

## Changes to INFRA Program (discretionary)

|                      |   |
|----------------------|---|
| Purpose              | Multimodal freight and highway projects of national or regional significance  |
| Funding              | <p>\$8 B (FY 22-26), including:</p> <ul style="list-style-type: none"> <li>• \$4.8 B (FY 22-26) in Contract Authority from the HTF; and</li> <li>• \$3.2 B (FY 22-26) in advance appropriations from the GF</li> </ul>  |
| Eligible entities    | <p>Adds eligibility for:</p> <ul style="list-style-type: none"> <li>• Multistate corridor organizations</li> </ul>  |
| Eligible projects    | <p>Adds eligibility for:</p> <ul style="list-style-type: none"> <li>• A highway, bridge, or freight project on the National Multimodal Freight Network</li> <li>• Marine highway corridor projects functionally connected to NHFN and likely to reduce on-road emissions;</li> <li>• Wildlife crossing projects; and</li> <li>• Surface transportation projects within the boundaries of or functionally connected to an international border crossing area;</li> </ul> |
| Other key provisions | <ul style="list-style-type: none"> <li>• Increases flexibility to use INFRA funds (up to 30% per FY) on non-highway freight projects</li> <li>• Sets aside <math>\geq 15\%</math> (instead of 10%) of grant funding for small projects and at least 30% of the set-aside amount for projects in rural areas</li> </ul>  |

## [NEW] National Infrastructure Project Assistance Program (“Mega-projects”) (discretionary)

|                      |  |
|----------------------|--|
| Purpose              | Provide funding through single-year or multiyear grant agreements for eligible surface transportation projects   |
| Funding              | \$5 B (FY 22-26) in advance appropriations from the GF   |
| Eligible entities    | <ul style="list-style-type: none"> <li>• State</li> <li>• MPO</li> <li>• Local government</li> <li>• Special purpose district or public authority with transportation function</li> <li>• Tribal governments</li> <li>• Partnership between Amtrak and one or more other eligible entities</li> </ul>  |
| Eligible projects    | <ul style="list-style-type: none"> <li>• Highway/bridge projects on National Multimodal Freight Network, NHFN, or NHS</li> <li>• Freight intermodal or freight rail projects that provide a public benefit</li> <li>• Railway-highway grade separation or elimination projects</li> <li>• Intercity passenger rail projects</li> <li>• Certain public transportation projects</li> </ul> |
| Other key provisions | <ul style="list-style-type: none"> <li>• Sets aside 50% of grant funding for projects costing more than \$100 M but less than \$500 M, and 50% for projects costing \$500 M or more</li> </ul>   |

## [NEW] Rural Surface Transportation Grants (discretionary)

|                      |  |
|----------------------|--|
| Purpose              | Improve and expand the surface transportation infrastructure in rural areas to increase connectivity, improve the safety and reliability of the movement of people and freight, and generate regional economic growth and improve quality of life.   |
| Funding              | \$2 B (FY 22-26) in Contract Authority from the HTF  |
| Eligible entities    | <ul style="list-style-type: none"> <li>• State</li> <li>• Regional transportation planning organization (RTPO)</li> <li>• Local government</li> <li>• Tribal government</li> </ul>   |
| Eligible projects    | <ul style="list-style-type: none"> <li>• Highway, bridge, or tunnel projects eligible under NHPP, STBG or the Tribal Transportation Program</li> <li>• Highway freight project eligible under NHFP</li> <li>• Highway safety improvement project</li> <li>• Project on a publicly-owned highway or bridge improving access to certain facilities that support the economy of a rural area</li> <li>• Integrated mobility management system, transportation demand management system, or on-demand mobility services</li> </ul> |
| Other key provisions | <ul style="list-style-type: none"> <li>• Sets aside each FY: ≤10% for grants to small projects (&lt;\$25M); 25% for designated routes of the ADHS; and 15% for projects in States with higher than average rural roadway lane departure fatalities</li> </ul>  |

## [NEW] Reduction of Truck Emissions at Port Facilities Program (discretionary)

|                      |   |
|----------------------|---|
| Purpose              | Study and competitive grants to reduce truck idling and emissions at ports, including through the advancement of port electrification   |
| Funding              | <p>\$400 M (FY 22-26), including—</p> <ul style="list-style-type: none"> <li>• \$250 M (FY 22-26) in Contract Authority from the HTF; and</li> <li>• \$150 M (FY 22-26) in advance appropriations from the GF</li> </ul>                                    |
| Eligible entities    | <ul style="list-style-type: none"> <li>• None specified</li> </ul>  |
| Eligible projects    | <ul style="list-style-type: none"> <li>• Competitive grants are intended to test, evaluate, and deploy projects that reduce port-related emissions</li> </ul>   |
| Other key provisions | <ul style="list-style-type: none"> <li>• Study to address how ports and intermodal port transfer facilities would benefit from increased opportunities to reduce emissions at ports, and how emerging technologies and strategies can contribute</li> </ul> |

# Changes to Railway-Highway Crossings Program (RHCP)

| Topic             | Changes   |
|-------------------|---|
| Eligible projects | <ul style="list-style-type: none"><li>• Clarifies funds are eligible for projects to reduce pedestrian fatalities and injuries from trespassing at grade crossings (ped safety improvements at crossings are already an eligible activity)</li></ul>  |
| Uses of funding   | <ul style="list-style-type: none"><li>• Eliminates the 50% set-aside for “protective devices”</li><li>• Increases the maximum incentive payment that a State may pay a local government for closing a public at-grade railway-highway crossing from \$7,500 to \$100,000, subject to certain conditions</li><li>• Increases from 2% to 8% the amount a State may use for data compilation and analysis in support of its annual RHCP report</li></ul> |
| Federal share     | <ul style="list-style-type: none"><li>• Increases the Federal share for projects financed with funds set aside for this program from 90% to 100%</li></ul>  |
| Reports           | <ul style="list-style-type: none"><li>• Requires FRA to summarize highway-rail grade crossing action plans and evaluate each State railway-highway crossing program and submit report to Congress on the results (§22401)</li><li>• Requires FRA, in consultation with FHWA, to update the report based on State annual reports required under the program and submit it to Congress (§22403)</li></ul>   |

## Questions

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# ***Bipartisan Infrastructure Law***

*Robert King*

*Federal Motor Carrier Safety Administration*



STATE **FREIGHT** ADVISORY COMMITTEE

# Funding Impacts for FMCSA

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- Provides more than \$3.2 billion in resources over 5 years
- Formula grant funding provided through Motor Carrier Safety Assistance Program (MCSAP) increases by approximately 61%
- Discretionary funding increased by approximately 90%
- BIL provides supplemental grant and general operating expense funds
- Agency's staff increasing significantly
  - 134 new Safety Investigators including Household Goods

# Special BIL Initiatives

---

## Human Trafficking

- Priority for the High Priority (HP) Commercial Motor Vehicle (CMV) grant program
- Now allowable under MCSAP, HP CMV, and Commercial Driver's License Program Implementation (CDLPI) grants
- Prioritized in FMCSA's Outreach programs
- Report (with OST) on Human Trafficking Violations Involving CMVs:
  - Every 3 years - first report due November 15, 2024
- Recommendations for countering human trafficking, in coordination with Department of Justice

## Motor Carrier Safety Advisory Committee (MCSAC)

- Revises the MCSAC to include small business motor carriers
- Extends the committee through September 2025

## Truck Leasing Task Force

- To examine common truck leasing arrangements, including the impact of inequitable leasing agreements, and resources needed to assist CMV drivers in assessing the financial impacts of leasing agreements

# Special BIL Initiatives - Continued

---

## **Promoting Women in Trucking Task Force**

- Establishes the Women of Trucking Advisory Board to explore trends and barriers that impact women minority groups, supporting training and employment opportunities for women in trucking, and to address safety risks unique to women in trucking.
- 2 years for Board to submit report
- 3 years for FMCSA to submit report to Congress

## **Apprenticeship Pilot Program and Driver Compensation Study**

- For CDL holders under the age of 21 operating with an “experienced driver”
- Agency announced new program in Federal Register notice - January 14, 2022
  - Program start to be announced on Agency website
- Requires a Driver Compensation Study

# Bipartisan Infrastructure Law

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# ***BREAK: Stretch, Coffee, Well-Being***



# *MARYLAND STATE UPDATE*



STATE **FREIGHT** ADVISORY COMMITTEE

# ***Maryland State Freight Plan***

*Michelle D. Martin, Maryland Department of Transportation and  
Chad Reese, Whitman, Requardt and Associates, LLP*



STATE **FREIGHT** ADVISORY COMMITTEE

# Maryland State Freight Plan



## Freight Plan Coordination and Update

State Freight Advisory Committee Meeting / April 6, 2022



# Contents

1. Freight Plan Overview *(Slides 3-4)*
2. Outreach Highlights *(Slides 5-7)*
3. Freight Focus Areas in Maryland *(Slides 8-11)*
4. Implementation Plan *(Slides 12-13)*
5. Plan Completion Schedule *(Slide 14)*
6. Discussion Questions / Contacts *(Slides 15)*



# Freight Plan Overview

## PURPOSE

To examine existing and projected conditions, build consensus, and identify policy positions, strategies, and freight projects to improve freight movement efficiency and safety

## VISION

Freight travels freely and safely through a modern, resilient, and interconnected multimodal network contributing to sustainable economic viability and growth for Maryland businesses and communities.

## GOALS

*aligned w/ the 2040 Maryland Transportation Plan (MTP)*



SAFETY, SECURITY, AND RESILIENCE



ECONOMIC OPPORTUNITY AND EFFICIENCY



SYSTEM PRESERVATION AND MODERNIZATION



QUALITY OF SERVICE, EFFICIENCY, AND CUSTOMER EXPERIENCE



ENVIRONMENTAL PROTECTION AND SENSITIVITY



FISCAL RESPONSIBILITY



TRANSPORTATION CHOICES AND CONNECTIONS

The **Infrastructure Investment and Jobs Act (IIJA)** identifies **17 federally required elements** for a state freight plan, including 7 new elements (compared to FAST Act) related to: truck parking, supply chains, ports, multi-state compacts, e-commerce, military freight, and resilience and environmental impacts.

# Freight Plan Overview

## Freight Background

### 1. Introduction

- Purpose, Vision, and Context
- Recent Freight Actions and Resources
- Stakeholders and Partnerships

### 2. Strategic Goals and Objectives

- Overview and Alignment with 2040 MTP
- Federal/State Requirements
- Initial Outreach Perspectives

### 3. Freight Demand and the Economy

- Commodity Flows
- Freight Economic Influences
- Freight Industry Sector Profiles

### 4. Freight Network and Infrastructure

- Road, Rail, Port/Waterway, and Air
- Energy Infrastructure
- Multimodal Freight Network

## Freight Focus Areas

### 5. Freight Performance, Trends, Needs

- Freight Performance Measures (by goal)
- Agency and Stakeholder Perspectives
- Freight Needs (regional and statewide)

### 6. Freight Focus Areas and Programs

- Aligned with federal requirements
- Aligned with state freight needs and interests

## Freight Implementation Plan

### 7. Freight Projects and Investment Plan

- Freight Project Candidates
- Funding Opportunities
- Freight Investment Plan

### 8. Freight Plan Implementation

- Freight Strategies
- Implementation Tactics and Next Step Priorities

# Outreach Highlights

> 20 coordination meetings, 3 major milestone surveys, as well as monthly Core Team meetings

| Calendar Year 2021                      | JAN        | FEB  | MAR   | APR        | MAY  | JUN  | JUL        | AUG  | SEP  | OCT   | NOV | DEC  |
|---|------------|------|-------|------------|------|------|------------|------|------|-------|-----|------|
| MDOT Freight Plan Core Team (CT)        | CT         | CT   | CT    | CT         | CT   | -    | CT         | CT   | CT   | CT    | CT  | CT   |
| MDOT TBUs Freight Roundtable (TBUs)     | -          | TBUs | -     | -          | -    | TBUs | -          | -    | -    | -     | -   | -    |
| State Freight Advisory Committee (SFAC) | -          | -    | SFAC  | -          | -    | -    | -          | -    | SFAC | -     | -   | -    |
| Maryland MPO Roundtable (MPO)           | MPO        | -    | -     | -          | -    | -    | -          | -    | -    | -     | -   | -    |
| Other MPO/Agency/Stakeholder Outreach   | FHWA       | -    | Balt. | -          | -    | -    | -          | -    | -    | Mont. | -   | -    |
| Milestone Surveys (MS)                  | -          | -    | -     | MS1 Survey |      | -    | -          | -    | -    | -     | -   | -    |
| Calendar Year 2022                      | JAN        | FEB  | MAR   | APR        | MAY  | JUN  | JUL        | AUG  | SEP  | OCT   | NOV | DEC  |
| MDOT Freight Plan Core Team (CT)        | CT         | CT   | CT    | CT         | CT   | CT   | CT         | CT   | CT   | CT    | CT  | CT   |
| MDOT TBUs Freight Roundtable (TBUs)     | -          | -    | -     | -          | TBUs | -    | -          | TBUs | -    | -     | -   | -    |
| State Freight Advisory Committee (SFAC) | -          | -    | -     | SFAC       | -    | -    | -          | -    | -    | SFAC  | -   | -    |
| Maryland MPO Roundtable (MPO)           | -          | -    | MPO   | -          | -    | MPO  | -          | -    | MPO  | -     | -   | -    |
| Other MPO/Agency/Stakeholder Outreach   | -          | **   | BRTB  | -          | -    | -    | -          | FHWA | -    | FHWA  | -   | MDOT |
| Milestone Surveys (MS)                  | MS2 Survey |      | -     | -          | -    | -    | MS3 Survey |      | -    | -     | -   | -    |

\*\* discussion with various MDOT sub-groups (MCD, CAV, Rail), as well as a dedicated survey effort for adjoining state DOTs (DE, VA, PA, WV, DC)

Future meetings and Milestone 3 formal draft plan reviews...

# Outreach Highlights

## STATE FREIGHT ADVISORY COMMITTEE (SFAC)

### SFAC Goal

Represent the freight community at large and advise the state on freight-related priorities, policies, issues, projects, and funding needs in order to advance freight goals and objectives in Maryland.

### SFAC Objectives

- Support state freight plan update
- Provide feedback on freight project prioritization
- Provide guidance on freight program activities
- Communicate freight experience and bottlenecks
- Advise on next generation supply chain operations and how the state can support industry
- React to freight performance and advise on solutions to address bottlenecks

SFAC Meeting Summaries: see [www.mdot.Maryland.gov/SFAC](http://www.mdot.Maryland.gov/SFAC)

| SFAC Date  | SFAC Discussion Topics  |
|------------|---|
| 03/03/2021 | <ul style="list-style-type: none"><li>• COVID Supply Chains</li><li>• <b>Freight Plan Update</b>, Rail Plan, Truck Parking</li><li>• MD Motor Truck Association</li><li>• Canton Railroad</li><li>• Consumer Brands Association</li></ul>   |
| 09/01/2021 | <ul style="list-style-type: none"><li>• PDD's, CAV's, TETC, Freight Technologies</li><li>• FHWA Freight Data</li><li>• <b>Freight Plan Update</b>, Primary Highway Freight System</li><li>• Freight Workforce and Education</li><li>• Howard Street Tunnel, Seagirt Marine Terminal</li></ul> |
| 04/06/2022 | <ul style="list-style-type: none"><li>• Efficient Freight Land Uses</li><li>• Freight Workforce Development</li><li>• Transportation Bill (IIJA) Updates</li><li>• <b>Freight Plan Update</b>, Rail Plan</li></ul>  |
| 10/05/2022 | <ul style="list-style-type: none"><li>• TBD</li></ul>   |

# Outreach Highlights

## Freight needs and focus areas were informed by:

- Stakeholder Outreach
- Background Research
- Existing Plans/Programs
- Performance Data
- Federal Requirements

### **Regional Needs Maps**

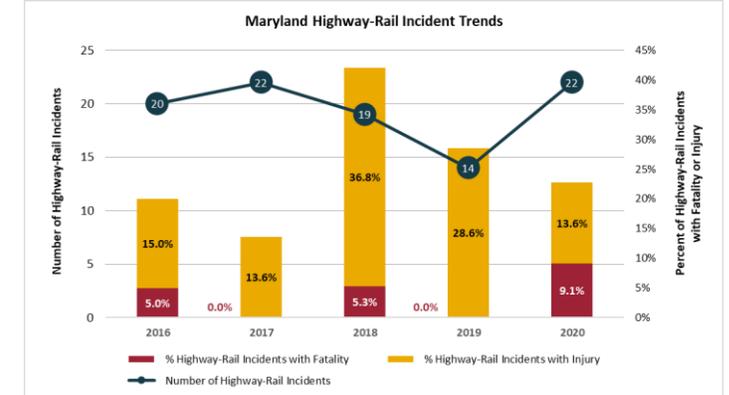
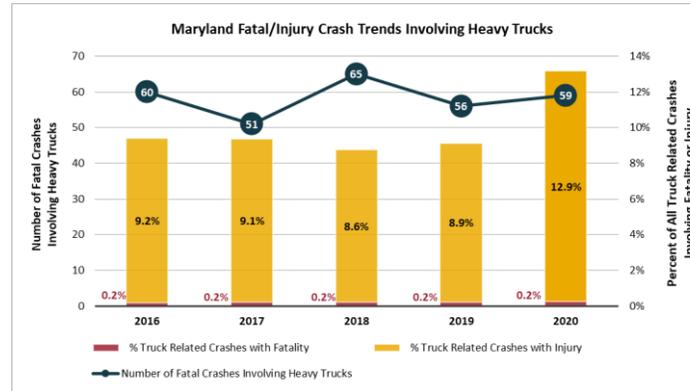
*Details will be included with Section 5 of the Freight Plan based on truck parking needs, congested routes/areas, truck bottlenecks, and related content shared during Milestone #2.*



# Freight Focus Areas

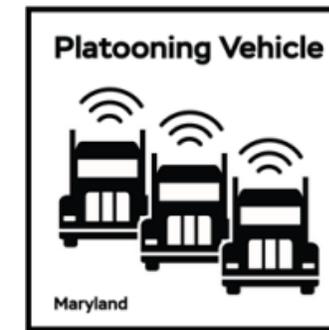
## 1. Safety/Security

- Truck crashes
- Highway-rail crossings
- Hazardous materials
- Cybersecurity



## 2. Technology & Operations

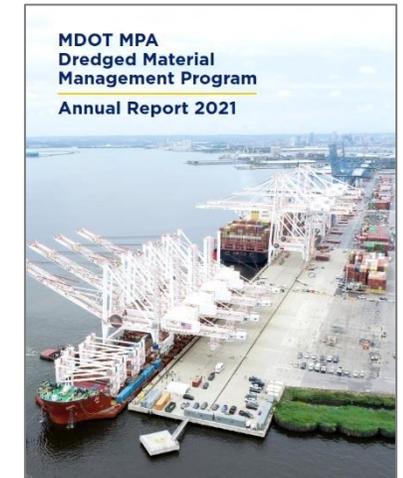
- TSMO, CHART, ITS
- Permitting & monitoring
- CAV, ADAS, truck platooning
- PDD, UAV, modeling/analytics



## 3. Asset Management

- Bridge conditions
- Pavement conditions
- Dredging
- Incident management

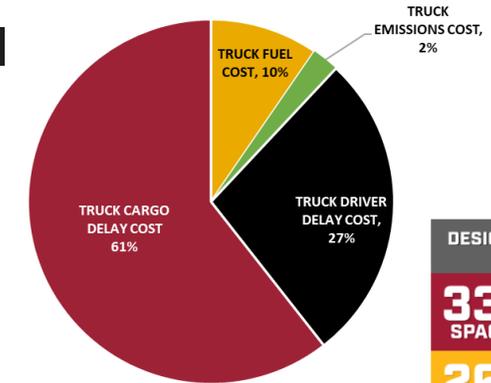
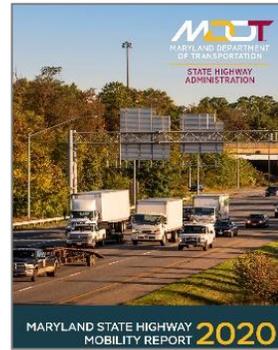
| CALENDAR YEAR                                | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|--|------|------|------|------|------|------|------|------|------|------|
| Number of MDTA Bridges in Poor Condition     | 4    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 0    |
| Number of MDOT Sha Bridges in Poor Condition | 97   | 87   | 81   | 69   | 69   | 67   | 62   | 52   | 36   | 29   |
| Total Number of Bridges in Poor Condition    | 101  | 88   | 82   | 70   | 70   | 68   | 63   | 53   | 37   | 29   |
| Percent of Bridges in Poor Conditions        | 3.5% | 3.0% | 2.8% | 2.4% | 2.4% | 2.4% | 2.2% | 1.8% | 1.3% | 1.0% |



# Freight Focus Areas

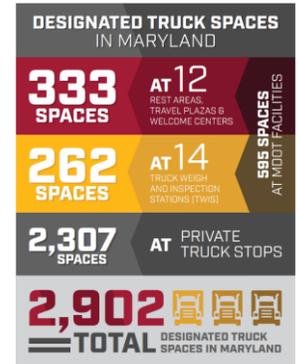
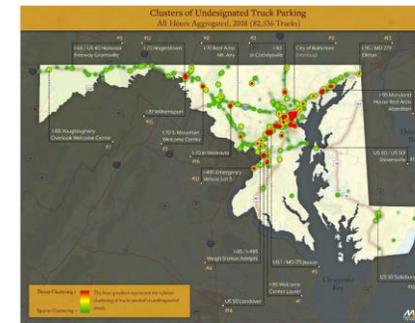
## 4. Congestion

- Truck volumes
- Truck bottlenecks
- Truck reliability
- Multimodal reliability



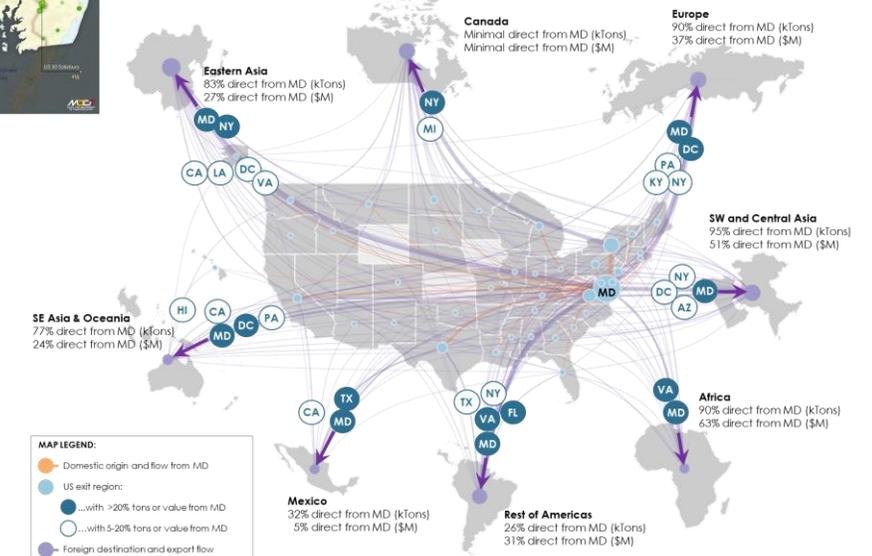
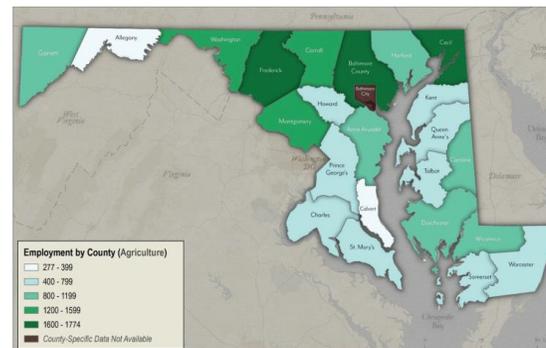
## 5. Truck Parking

- Designated truck parking
- Undesignated truck parking
- Challenges and opportunities



## 6. Supply Chains

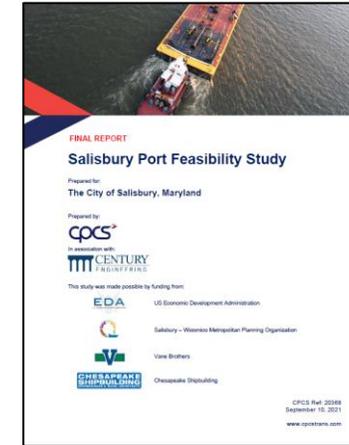
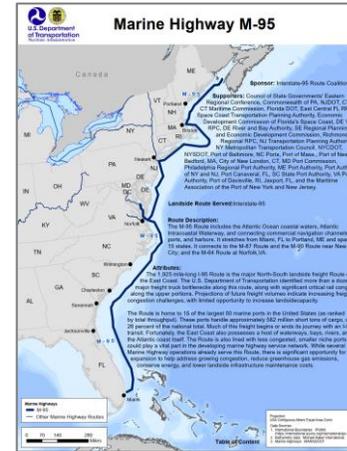
- Cargo flows and key industries
- Multimodal opportunities
- Freight land use
- Freight workforce



# Freight Focus Areas

## 7. Ports

- Port infrastructure
- Port access & mobility
- M-95 marine highway
- Inland waterways



## 8. Multistate Coordination

- Multistate coalitions
- Multistate MPO coordination
- Adjoining state perspectives

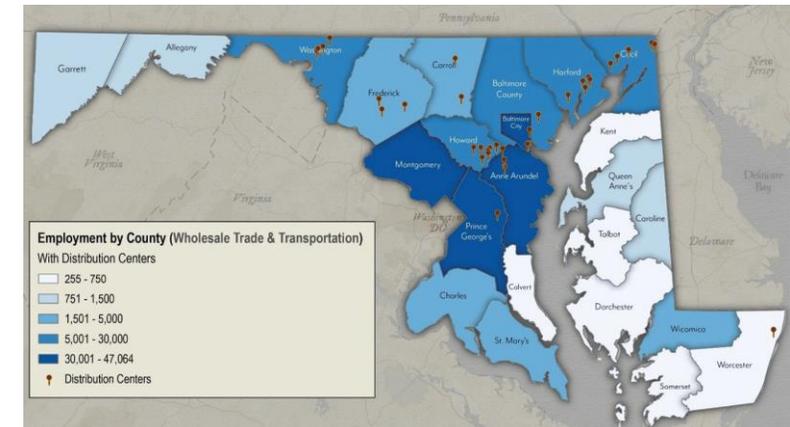


## I-81 CORRIDOR COALITION



## 9. E-Commerce

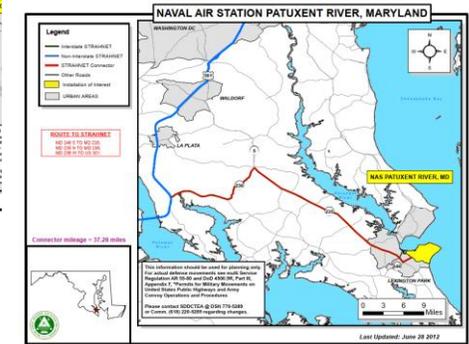
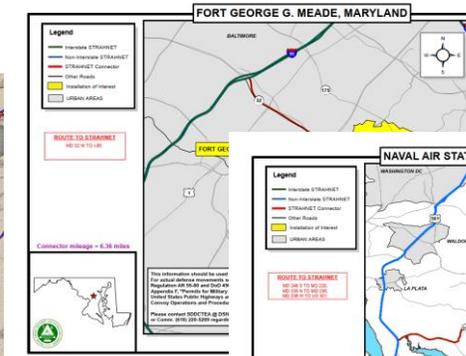
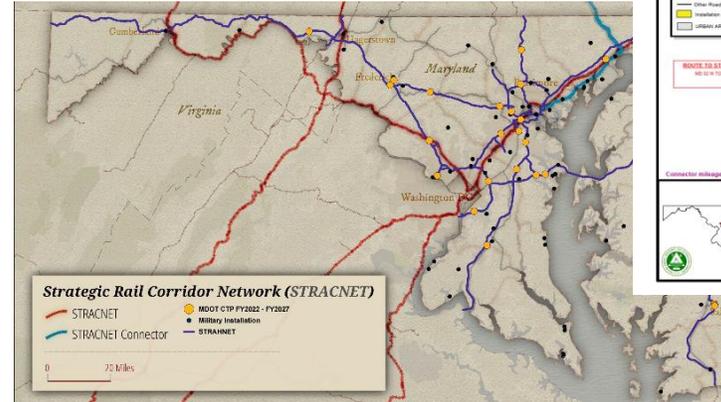
- Trade, transportation, & warehousing
- Local planning & zoning
- Local consolidation centers
- Local curb management



# Freight Focus Areas

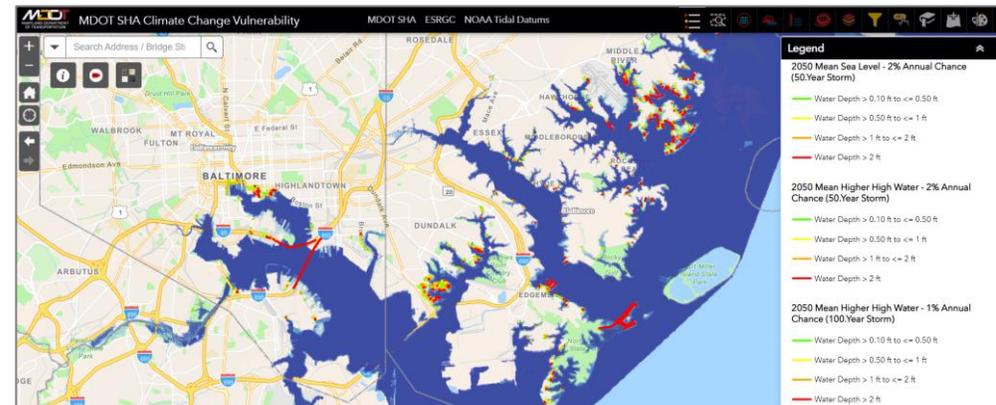
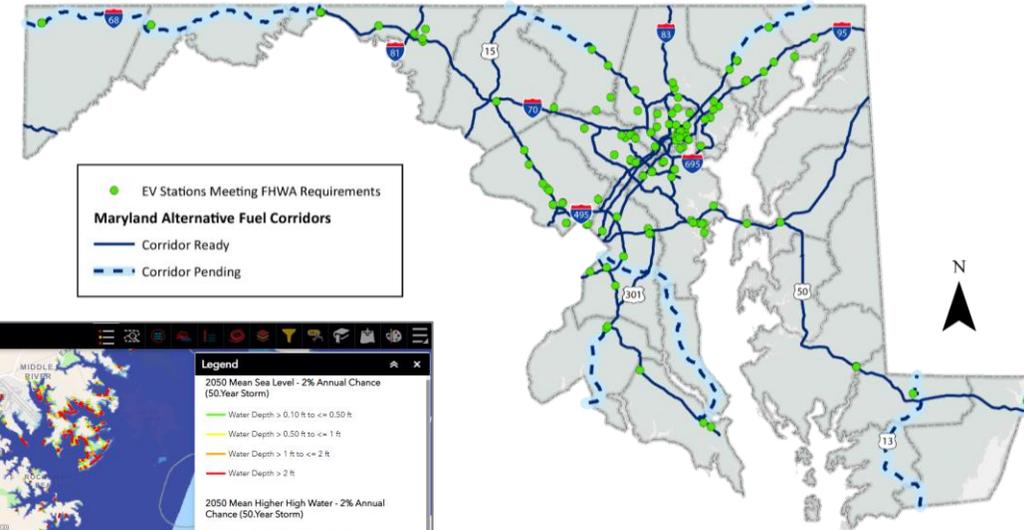
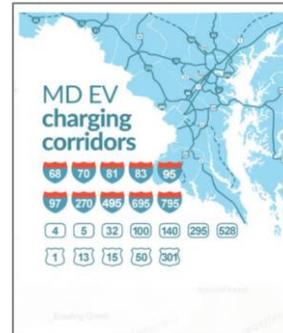
## 10. Military Freight

- Maryland military installations
- Strategic defense networks
- Freight project/program influences

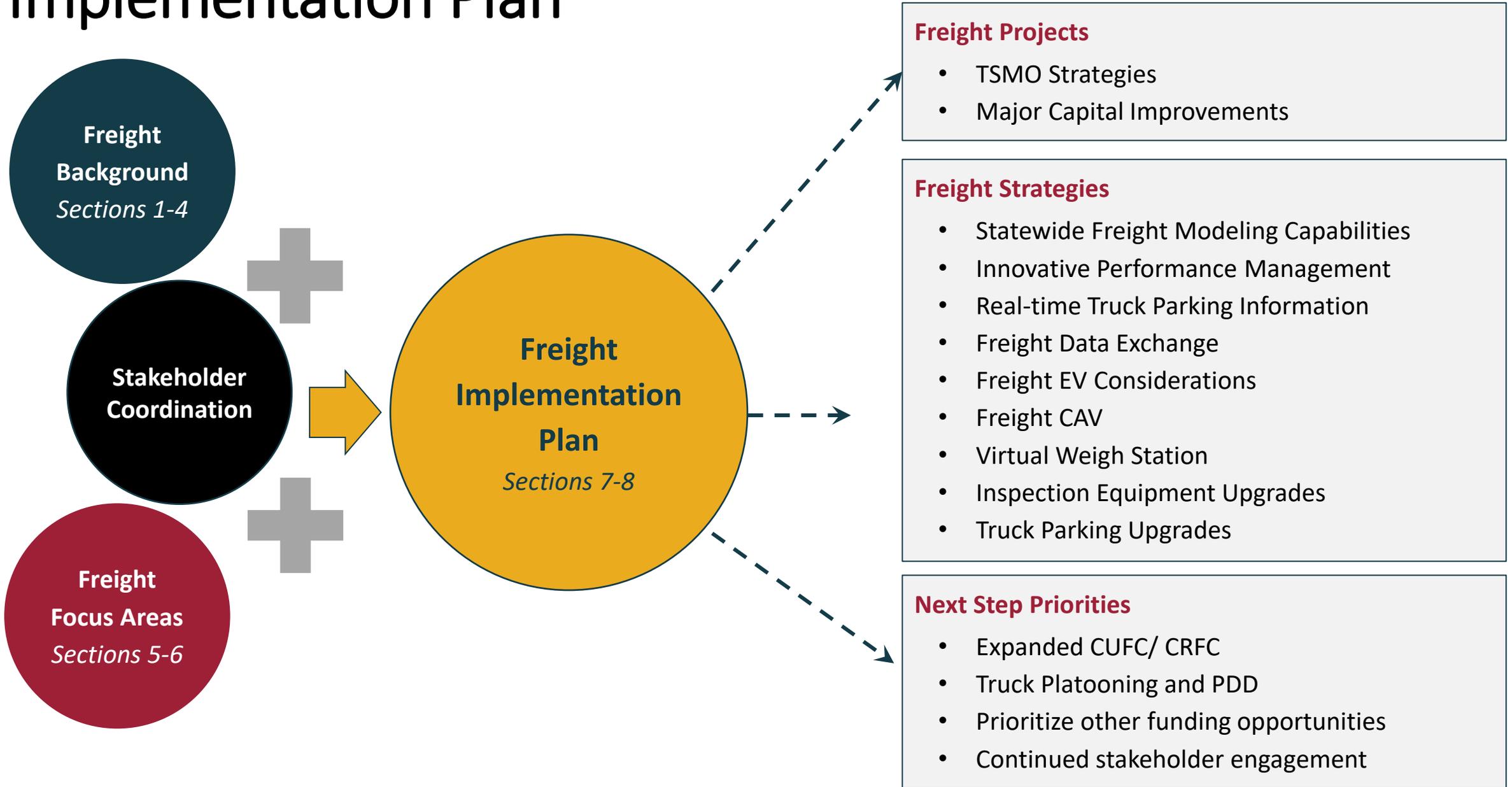


## 11. Resilience & Environmental

- Climate change vulnerabilities
- Emergency freight access
- Alternative & efficient energy
- Community considerations



# Implementation Plan



# Implementation Plan

## Formula Funding Opportunities:

- **National Highway Freight Program (NHFP)**
- Airport Infrastructure Grant Program
- National Highway Performance Program (NHPP)
- Surface Transportation Block Grant Programs
- Highway Safety Improvement Program (HSIP)
- Congestion Mitigation and Air Quality Management program (CMAQ)
- National Electric Vehicle Infrastructure Program (NEVI)
- Railway-Highway Crossing Program

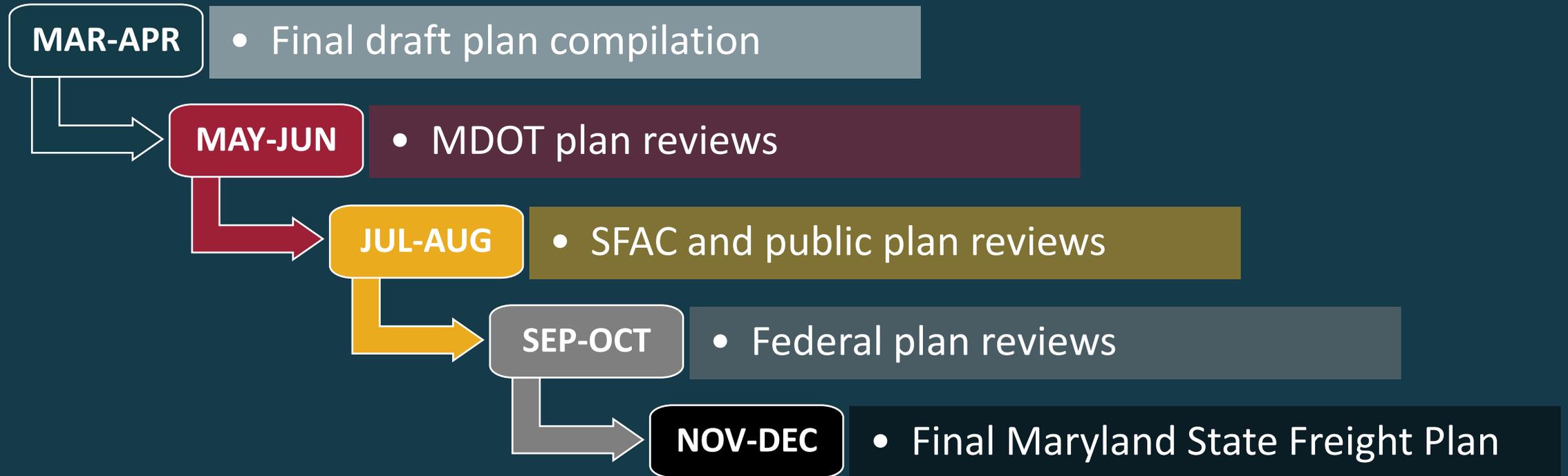
*IJA expands freight funding uses and opportunities*

## Discretionary Grant Programs:

- Nationally Significant Freight and Highway Projects Grant Program / Infrastructure for Rebuilding America (**INFRA**)
- National Infrastructure Project Assistance (**NIPA**) / (Mega projects)
- Reduction of Truck Emissions at Port Facilities Program
- Consolidated Rail Infrastructure and Safety Improvements (**CRISI**)
- Rural Surface Transportation Grant Program
- Rebuilding American Infrastructure with Sustainability & Equity (**RAISE**) / Local and Regional Project Assistance Program
- Railroad Crossing Elimination Grant program
- Port Infrastructure Development Program
- Motor Carrier Safety Assistance Program
- Bureau of Transportation Statistics (grants, cooperative agreements, and other contracts)



# Plan Completion Schedule



# Discussion Questions

1. Are there other **freight focus areas** relevant to ongoing freight needs and programs in Maryland?
2. Are there other **implementation priorities** relevant to continuing Maryland freight planning and coordination?

For more information, please contact us at the following:

## Project Website:

<https://mdot.maryland.gov/freightplan>

## Project Email:

[MDStateFreightPlan@mdot.maryland.gov](mailto:MDStateFreightPlan@mdot.maryland.gov)



# Thank You!



# *Maryland State Rail Plan Update*

*Harry Romano*

*Maryland Department of Transportation*



STATE **FREIGHT** ADVISORY COMMITTEE

# MARYLAND STATE RAIL PLAN

Rail Plan  
Update  
SFAC Meeting



April 6, 2022

# Agenda

- » Background
- » Outreach
- » Vision & Goals
- » Rail Plan Overview
- » Rail Needs
- » Rail Service and Investments, Funding and Benefits
- » Next Steps





# Background



# Purpose of the Rail Plan

- » The Maryland State Rail Plan is being developed in accordance with the federal Passenger Rail Investment and Improvement Act of 2008 (PRIIA) as well as the recently passed federal Infrastructure and Investment Act (IIJA).
- » The Rail Plan serves as a guide and resource for federal funds through projects and grant applications.
- » In addition to criteria outlined in PRIIA, the Maryland State Rail Plan will adhere to more detailed guidance issued by the Federal Railroad Administration (FRA) in 2013.



# Rail Operations Addressed by the Rail Plan

Rail plans cover commuter (provided by MARC in Maryland), intercity passenger (Amtrak), and freight rail service. State rail plans do not address rail transit operations like light rail or metrorail that operate on their own rights of way apart from the general rail network.

Commuter Rail



Freight Rail



Intercity Passenger  
Rail

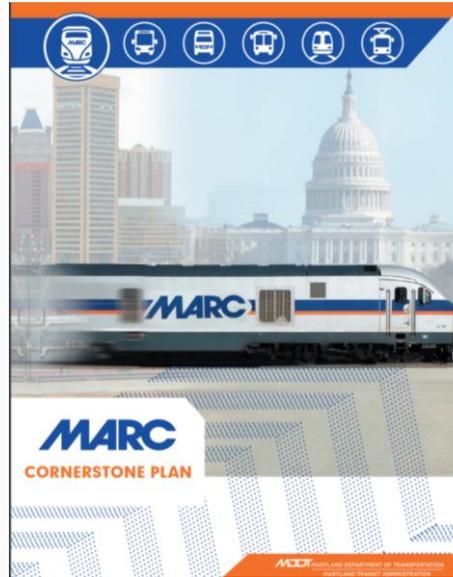


# 2022 Maryland State Rail Plan

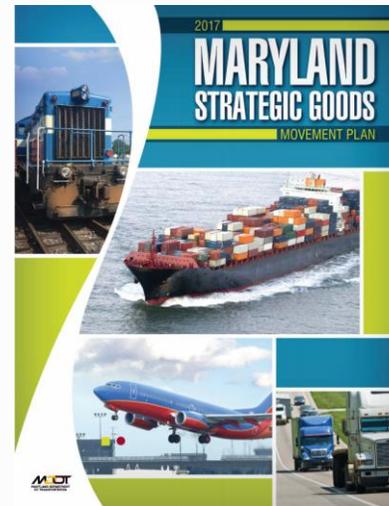
- The 2022 Maryland State Rail Plan is an update of the 2015 State Rail Plan.
- The 2022 Rail Plan will provide:
  - An overview of the current and planned rail network and services within Maryland;
  - Trends that will impact Maryland's rail network in the future; and
  - An outline of public and private investments, policies and strategies that will help to guide Maryland's support of railroad transportation in the future.



# CONNECT 2035



## Coordination with other Plans



# Rail Plan Outline, as Prescribed by FRA

## Chapter 1: Role of Rail

Articulates state transportation goals and how rail fits in, how the state is organized to support rail

## Chapter 2: State's Existing Rail System

Summarizes freight and passenger rail infrastructure and services

Assesses the performance of rail lines

Identifies trends that will impact future

## Chapters 3 and 4: Issues and Opportunities Initiatives and Investments

Identifies top issues and opportunities

Identifies initiatives and strategies to address the issues and opportunities

## Chapter 5: Service and Investment Program

Articulates vision, goals, and objectives

Lists projects

Provides prioritization and a funding plan

## Chapter 6: Coordination and Review

Summarizes stakeholder involvement





# Outreach



# Outreach

- » MDOT is committed to engaging rail stakeholders and the public in all rail planning activities.
- » Stakeholders were engaged with:
  - Advisory Committee Meetings
  - Topical Meetings regarding passenger rail, Class I railroads in the DC/Baltimore areas, and short line railroads in rural areas
  - Online Surveys
  - Interviews
  - Website
  - Outreach to Neighboring States
  - Railroad Questionnaires and Data Collection
  - State Freight Advisory Committee



# Outreach

- » An Advisory Committee of key stakeholders from railroads, state agencies, Metropolitan Planning Organizations (MPOs), and other organizations met twice during the State Rail Plan development.

MDOT The Secretary's Office (TSO) of Planning and Capital Programming including the Rail and Intermodal Freight Group

MDOT Maryland Port Administration (MDOT MPA)

MDOT Maryland Transit Administration (MDOT MTA)

MDOT State Highway Administration (MDOT SHA)

Maryland Department of Commerce

Maryland Department of Planning

Maryland Department of Labor

Tradepoint Atlantic

Amtrak

CSX Transportation

Norfolk Southern

Baltimore Regional Transportation Board (BRTB)

National Capital Region Transportation Planning Board (TPB)

Hagerstown/Eastern Panhandle MPO

Cumberland Area MPO

Salisbury/Wicomico MPO

Calvert-St. Mary's MPO

Wilmington Area Planning Council (WILMAPCO)





# Vision & Goals



# Rail Plan Vision, Goals, Objectives, Strategies

## Vision, Goals, Objectives, and Strategies

Developed to align with the overall MDOT mission, the 2040 Maryland Transportation Plan (MTP) and PRIIA requirements

## Maryland State Rail Plan Goals

*“Freight and passenger rail is a well-maintained, sustainable and intermodal component of the transportation system that supports the equitable, safe, convenient, and efficient movement of people and goods within and through Maryland.”*



## Goals

Safety, Security, Resilience

Maintain and Modernize

Quality, Efficiency, Customer Experience

Environmental Protection, Sensitivity

Transportation Choices and Connections

System Expansion for Economic Opportunity, Congestion Reduction

Fiscal Responsibility

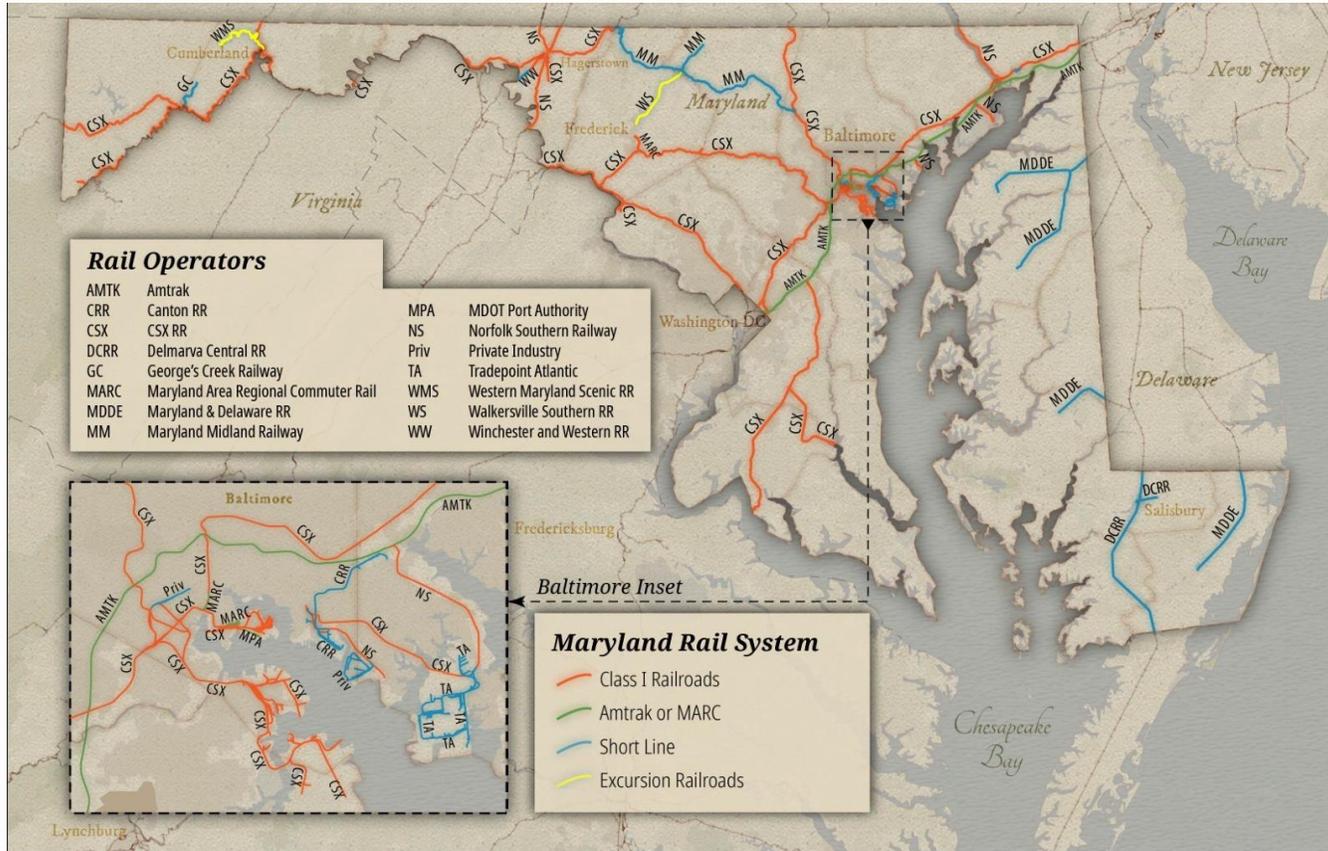




# Rail Plan Overview



# Maryland's Rail Lines



Maryland's rail network is comprised of about 886 miles of active track, owned and operated by a variety of railroads.

- **Class I railroads:** Norfolk Southern and CSX
- **Class II railroads:** None own trackage in Maryland.
- **Short Line Railroads:** Seven operate in Maryland.
- **The National Passenger Railroad Corporation or Amtrak**
- **MDOT MTA – MARC Train Service**
- **Excursion Railroads**



# Commodities Moving by Rail in Maryland

- » Many of the commodities that move by rail to or from Maryland are raw materials, but the Maryland rail system handles a variety of other products as well.
  - **Coal** is the highest volume commodity category
  - **Nonmetallic minerals** is the second highest commodity category
  - **Chemicals** is the third highest commodity category
  - **Waste and scrap**
  - **Stone, clay, and glass**
  - **Transportation equipment**
  - **Food products**
  - **Intermodal containers**
  - **Lumber and wood**



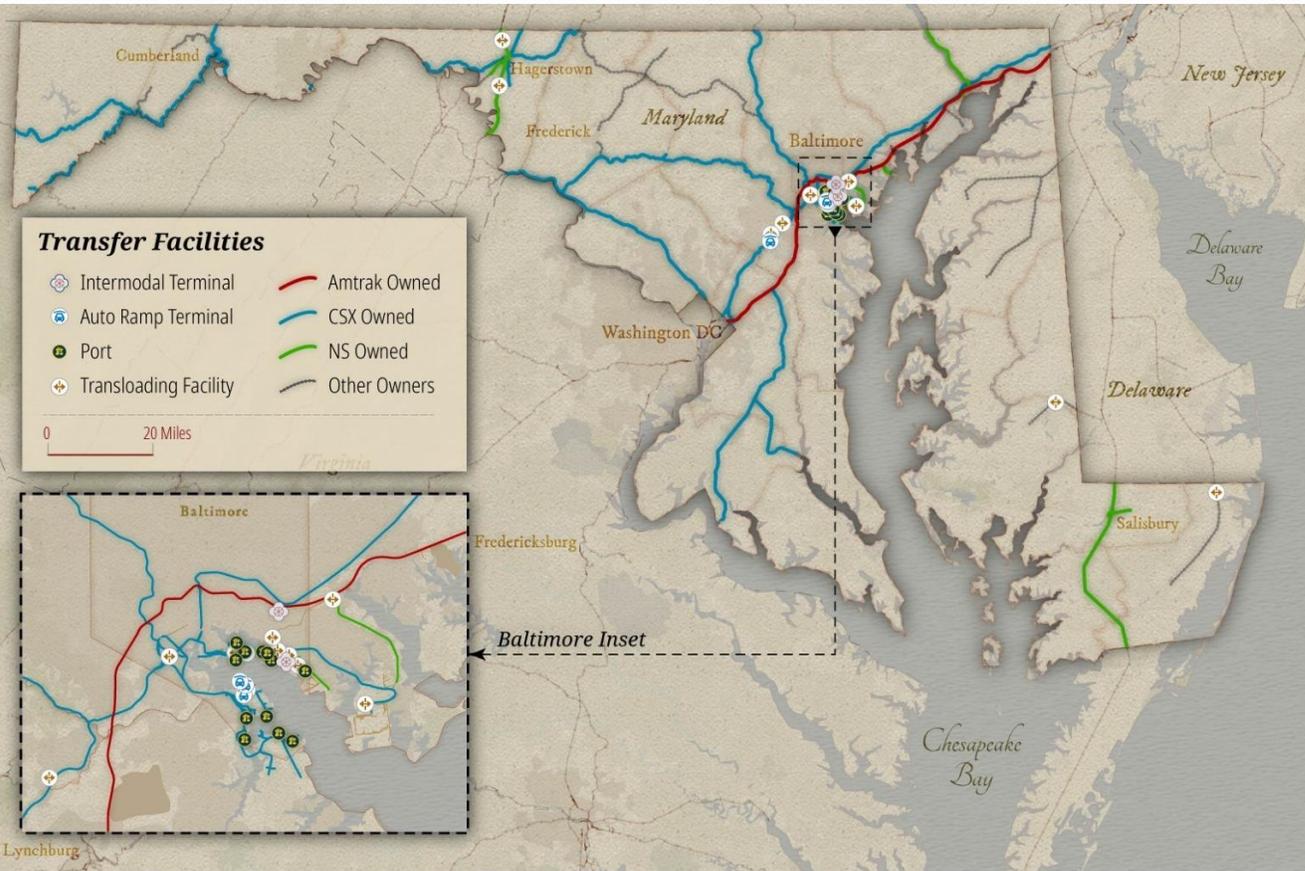
# Shipper Access to the Rail Network

Railroads serve shippers directly by sidings at customer facilities, or indirectly through multimodal facilities.

Multimodal Freight Facilities facilitate transferring cargo between railroad cars and other vehicles, by way of intermodal terminals, automotive ramps, port facilities, and transload facilities.

## Origins and Destinations of Freight that Moves by Rail in Maryland

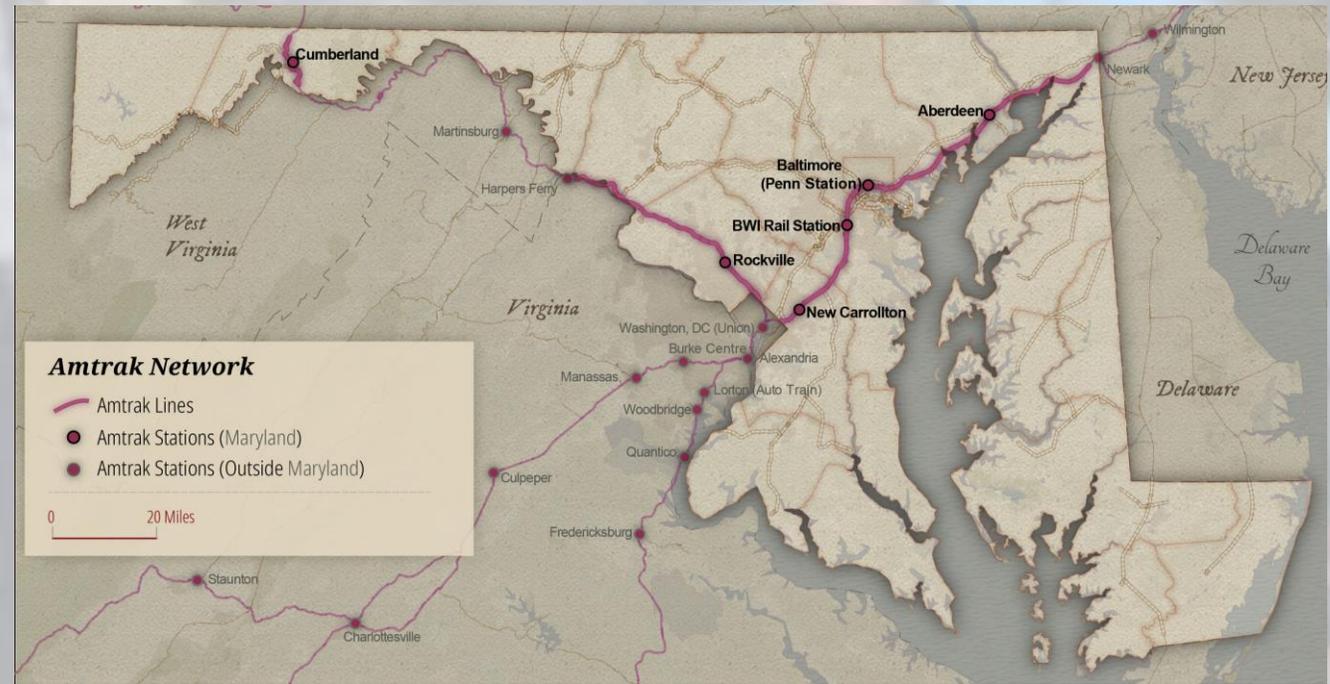
- Baltimore City and Baltimore County accounted for 71% of tons by rail to/from Maryland in 2019
- Maryland's largest trading partners by rail are Pennsylvania/West Virginia (coal), followed by Maryland, Virginia, Illinois and Ohio



# Amtrak Services in Maryland

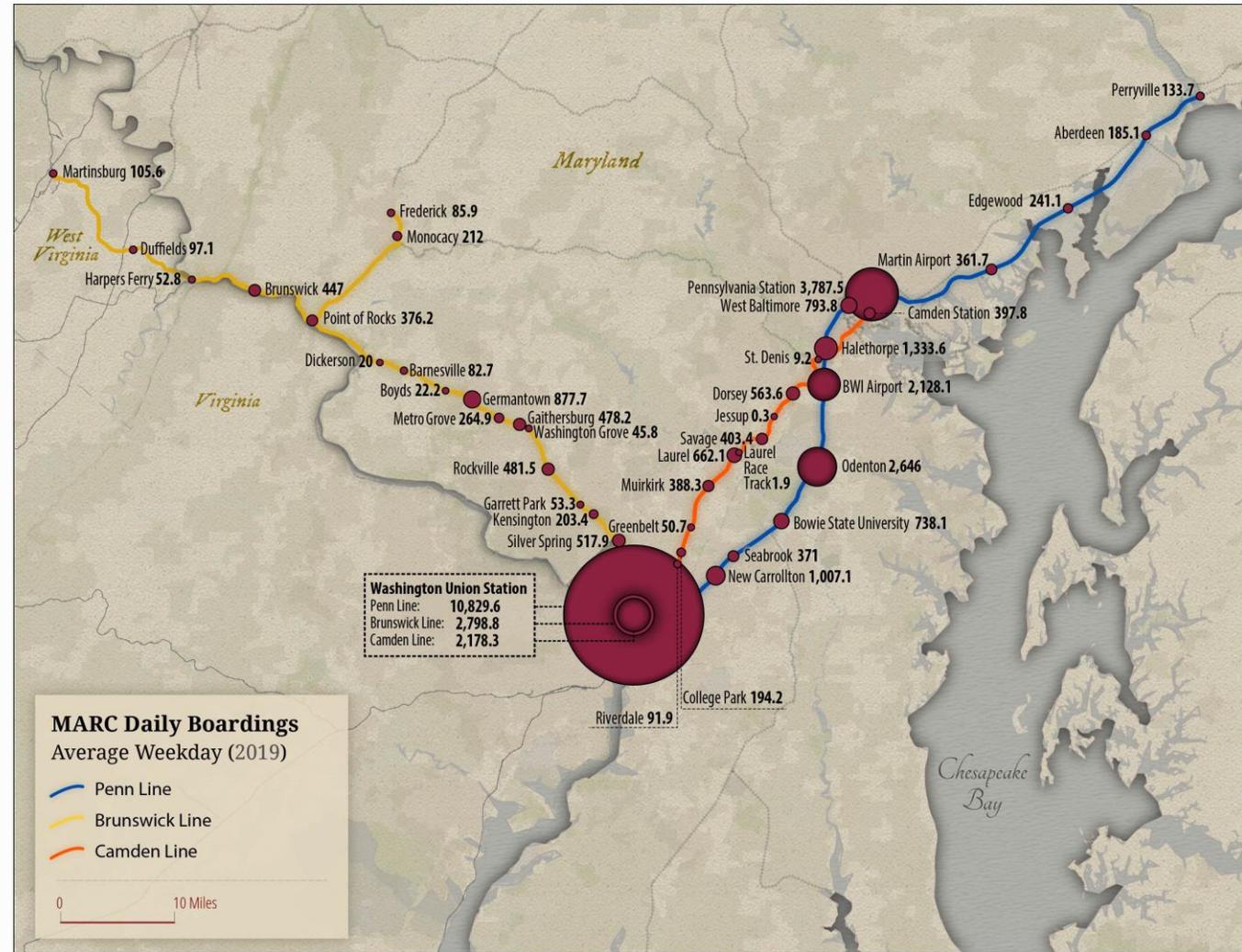
- » Amtrak operates intercity passenger services in Maryland, while the MDOT MTA MARC Train service operates commuter trains.
- » All Amtrak services operate on the Northeast Corridor, except the *Capitol Limited* long distance service, which operates over CSX between Washington, DC and Chicago via Cumberland.

- **Acela and Northeast Regional Services** operate exclusively on Amtrak's Northeast Corridor, between Washington, DC and New York, NY or Boston, MA
- **State supported routes** operating over the Northeast Corridor to and from points outside Maryland
- **Amtrak long distance routes** serve routes greater than 750 miles, connecting Maryland to points such as Miami, New Orleans, Cincinnati, and Chicago



# MDOT MTA MARC Service

- » Commuter rail service in Maryland operates under the MARC brand, created in 1984 by the Maryland State Railroad Administration (SRA) and now a service of MDOT MTA.
- » The MARC system today is comprised of three lines terminating at Washington, D.C. Union Station: the Penn Line, Camden Line, and Brunswick Line.



# MDOT MTA MARC Service

- » MARC service primarily provides commuter access to employment centers during peak hours. The busiest MARC stations are on the Northeast Corridor (Penn Line) between Washington, D.C. and Baltimore, which hosts the most frequent service. Measured by weekday boardings, MARC is the largest user of Washington Union Station.



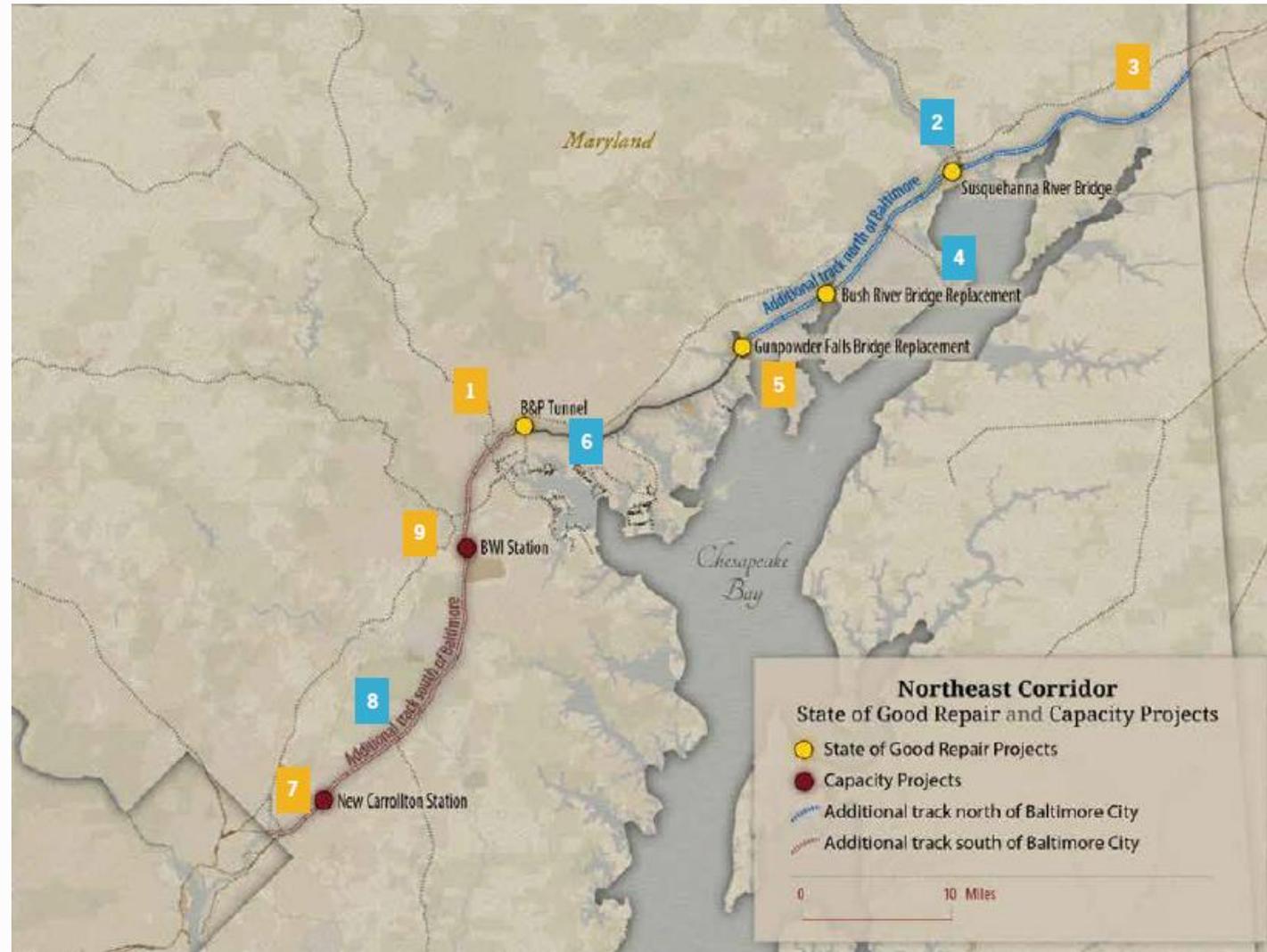


# Rail Needs



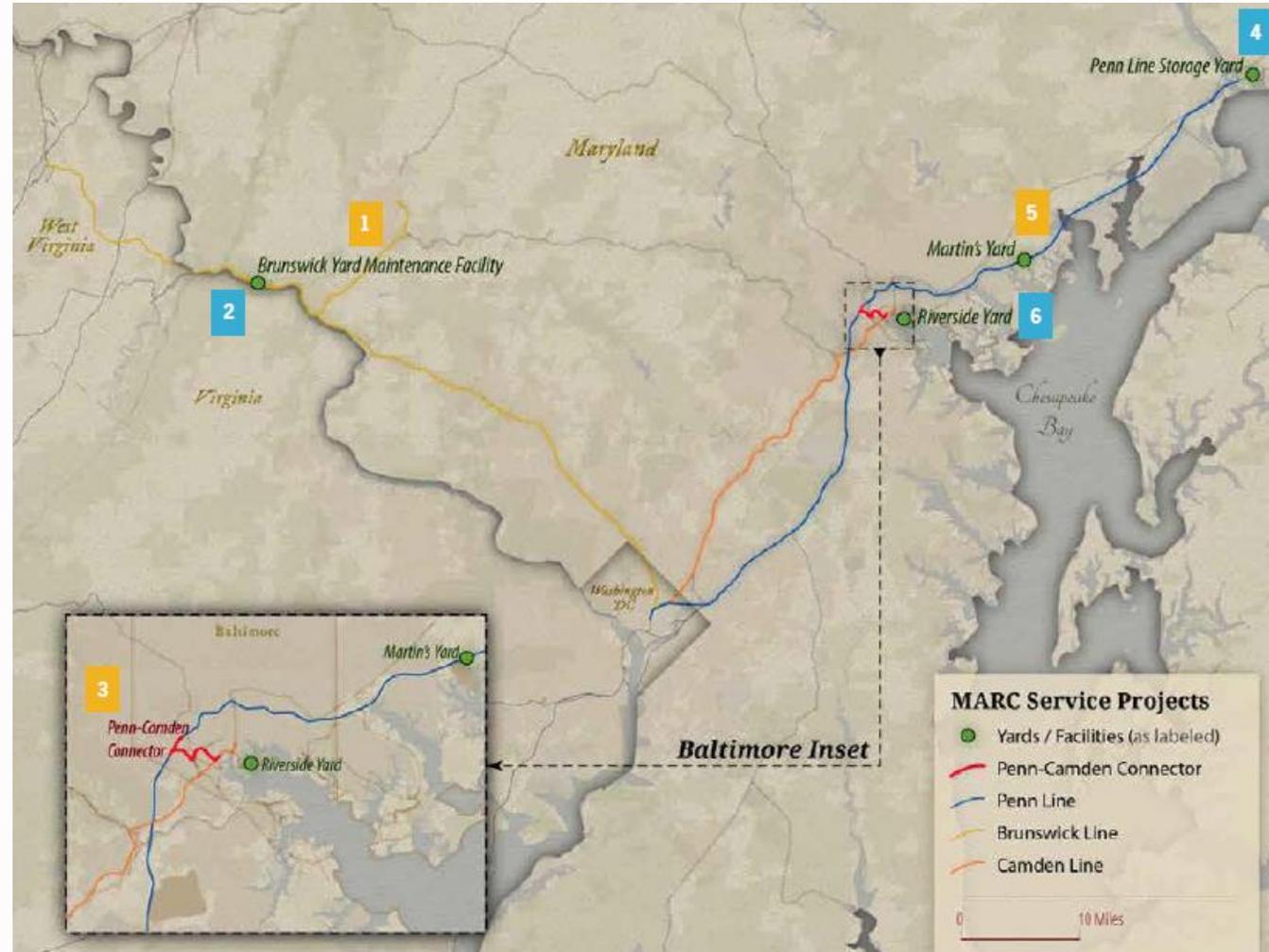
# Passenger Rail Needs – Northeast Corridor

1. B&P Tunnel Replacement
2. Susquehanna River Bridge Replacement
3. Additional Track
4. Bush River Bridge Replacement
5. Gunpowder Falls Bridge Replacement
6. Baltimore Penn Station Improvements
7. New Carrollton Station Track 1 Platform
8. Signal Improvements
9. BWI Airport Platform Extension



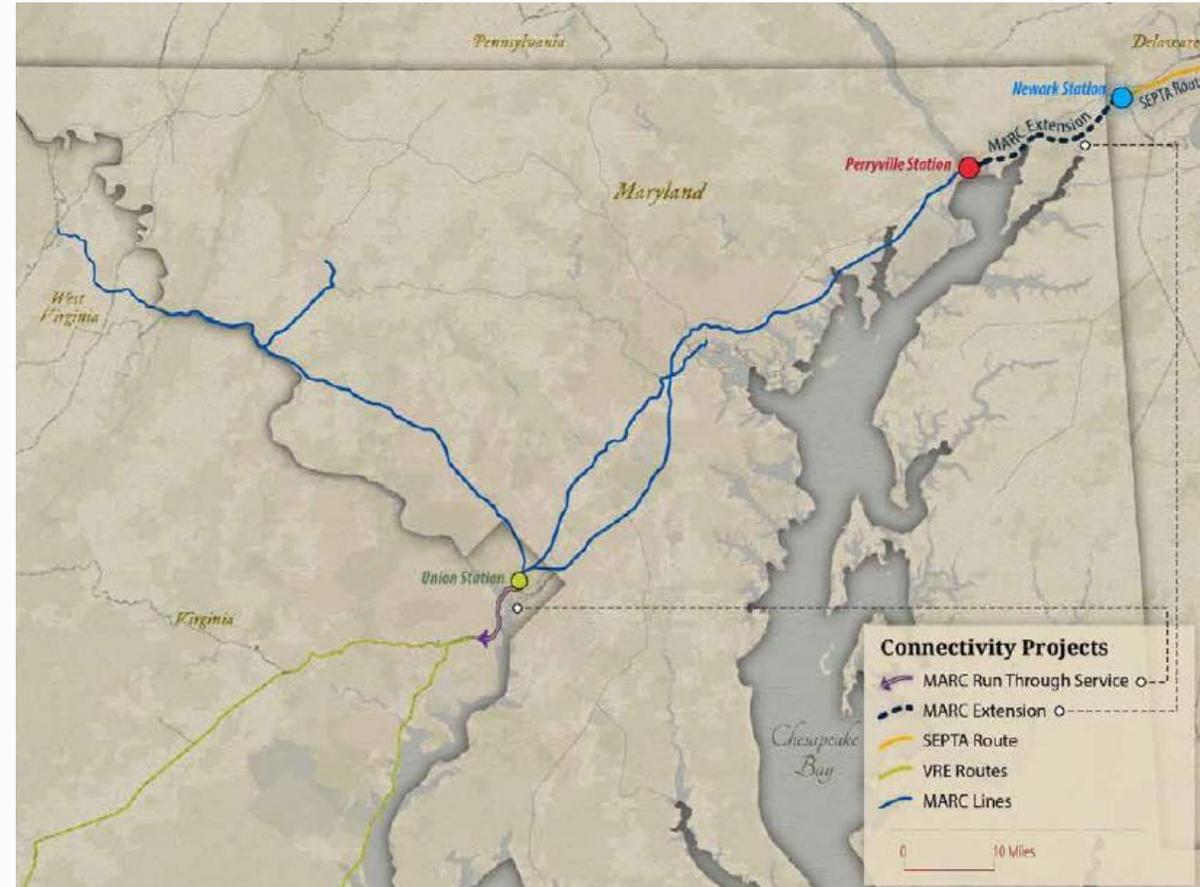
# Passenger Rail Needs – MARC Capital Needs

- » MARC fleet to overhauls (coaches and locomotives)
- » Station Initiatives to improve access, transit-oriented development and other station improvements
- » Other efforts
  1. Brunswick Yard Maintenance Facility
  2. Penn-Camden Connector
  3. Penn Line Storage Yard
  4. Martin's Yard
  5. Riverside Maintenance Facility



# MARC Connections to Regional Rail Systems

- » Stakeholders noted that regional rail networks, including MARC, the Southeastern Pennsylvania Transit Authority (SEPTA), and the Virginia Railway Express (VRE), are currently shaped by both political boundaries and by travel markets.
- » Integrating these networks could increase travel options to better connect regional activity centers and provide a more seamless journey for rail customers.
  - Run Through Service to Northern Virginia
  - Ticketing
  - Connection to SEPTA at Northern Delaware



# Freight Rail Needs

» Many of Maryland's freight rail needs relate to intermodal service and access to the Port of Baltimore or to the state's short line and regional railroads.

» Also includes:

1. Short Line and Excursion Railroad Projects
2. Howard Street Tunnel
3. Double-Stack Access to the Port of Baltimore



# Other Needs

- » During the preparation of the Maryland State Rail Plan, stakeholders identified additional needs.
- » Safety and Grade Crossing Concerns
- » Class I Railroad Capacity and Fluidity
- » Other Passenger Service Extensions:
  - MDOT MTA - studying possible MARC Brunswick Line service extensions (Western MD).
  - Stakeholders - recommended rail service to the Eastern Shore.
  - 2021 Monorail study - to assess the viability of a monorail system between Shady Grove Metrorail Station and Frederick, MD along I-270.
  - SCMAGLEV - study underway by a private company, Baltimore Washington Rapid Rail, to establish an ultra-high-speed connection between Washington, D.C., Baltimore, MD and eventually New York, NY.. On August 25, 2021, the FRA paused the environmental review process to “review project elements and to determine the next steps.”





# Rail Service and Investment, Funding and Benefits



# RAIL SERVICE AND INVESTMENT PROGRAM

The Maryland State Rail Plan includes a Rail Service and Investment Program, per federal requirements, which lists potential capital investments to support the vision, goals, and objectives of the Maryland State Rail Plan over the next 20 years. While the Maryland State Rail Plan does not recommend a specific timeline or prioritization of investments, project readiness considerations could influence project timing. Several indicators of readiness include: the project's relative priority to project sponsors; consistency with relevant funding sources and opportunities, including project size and characteristics; need for/completion of required agreements among impacted organizations; and status of project development, including necessary planning, environmental, and design work.



# Funding the Maryland State Rail Plan

## » Federal Formula Funding

- MDOT MTA receives federal formula grants supporting the MARC operating and capital needs.
- MDOT SHA receives formula grants for highway-rail grade crossing improvements.

## » Federal Competitive Discretionary Grant Programs

- » The new 2021 Bipartisan Infrastructure Law provides unprecedented funding for rail at \$66 billion, with an opportunity to fund “mega projects” on the Northeast Corridor. The project authorizes at least \$22.2 billion over five years for projects on the Northeast Corridor.



# Benefits of the Maryland State Rail Plan

- » The projects of the Maryland State Rail Plan promote Mobility and Congestion Reduction. A single freight train carries as much cargo as hundreds of trucks, thus reducing highway traffic. Similarly, each commuter or intercity passenger train removes hundreds of personal automobiles from the road network.
- » The Maryland State Rail Plan supports Economic Development. Projects improve freight service to/from the Port of Baltimore and key industries.
- » The Maryland State Rail Plan supports Safety.
- » The Maryland State Rail Plan promotes reduced Fuel Consumption and Emissions by supporting the usage of the rail mode.





# Next Steps



# Next Steps

- » Work with partners to advance projects and initiatives, such as on the Northeast Corridor, improved access to the Port of Baltimore, rail corridor preservation
- » Identify priorities for grade crossing safety improvements, and strategies for preventing trespassing
- » Assess potential revisions to state rail programs and oversight, including consolidation of state rail functions, multi agency program to assist short line railroads
- » Continue discussions and studies regarding the potential extension of MARC into Northern Delaware and/or Northern Virginia
- » Continue to monitor and explore opportunities for innovative rail technologies



# Schedule

- » Draft Rail Plan spring/summer 2022
- » Finalize Rail Plan fall 2022
- » Contact: Harry Romano, Rail Program and Policy Manager, MDOT, 410-684-7063, [hromano@mdot.maryland.gov](mailto:hromano@mdot.maryland.gov)

For more information on the Maryland State Rail Plan, as well as to view the full Maryland State Rail Plan report, visit: [mdot.Maryland.gov/RailPlan](https://mdot.Maryland.gov/RailPlan)



# Questions/Comments?



# *COMMITTEE UPDATES*



STATE **FREIGHT** ADVISORY COMMITTEE

# ***HOUSEKEEPING AND ADMINISTRATION***



# NEXT SFAC MEETING

Go to [www.menti.com](http://www.menti.com) and use the code 7197 1130

What should the next SFAC Meeting (in October) focus on?

 Mentimeter



# SFAC POLL

Go to [www.menti.com](http://www.menti.com) and use the code 7197 1130

## What types of activities/actions would keep you engaged?

Mentimeter



# *THANK YOU*



STATE **FREIGHT** ADVISORY COMMITTEE



***FEEL FREE TO CONNECT WITH OTHERS***

**M****DOT** MARYLAND DEPARTMENT OF TRANSPORTATION  
**STATE FREIGHT**  
ADVISORY COMMITTEE